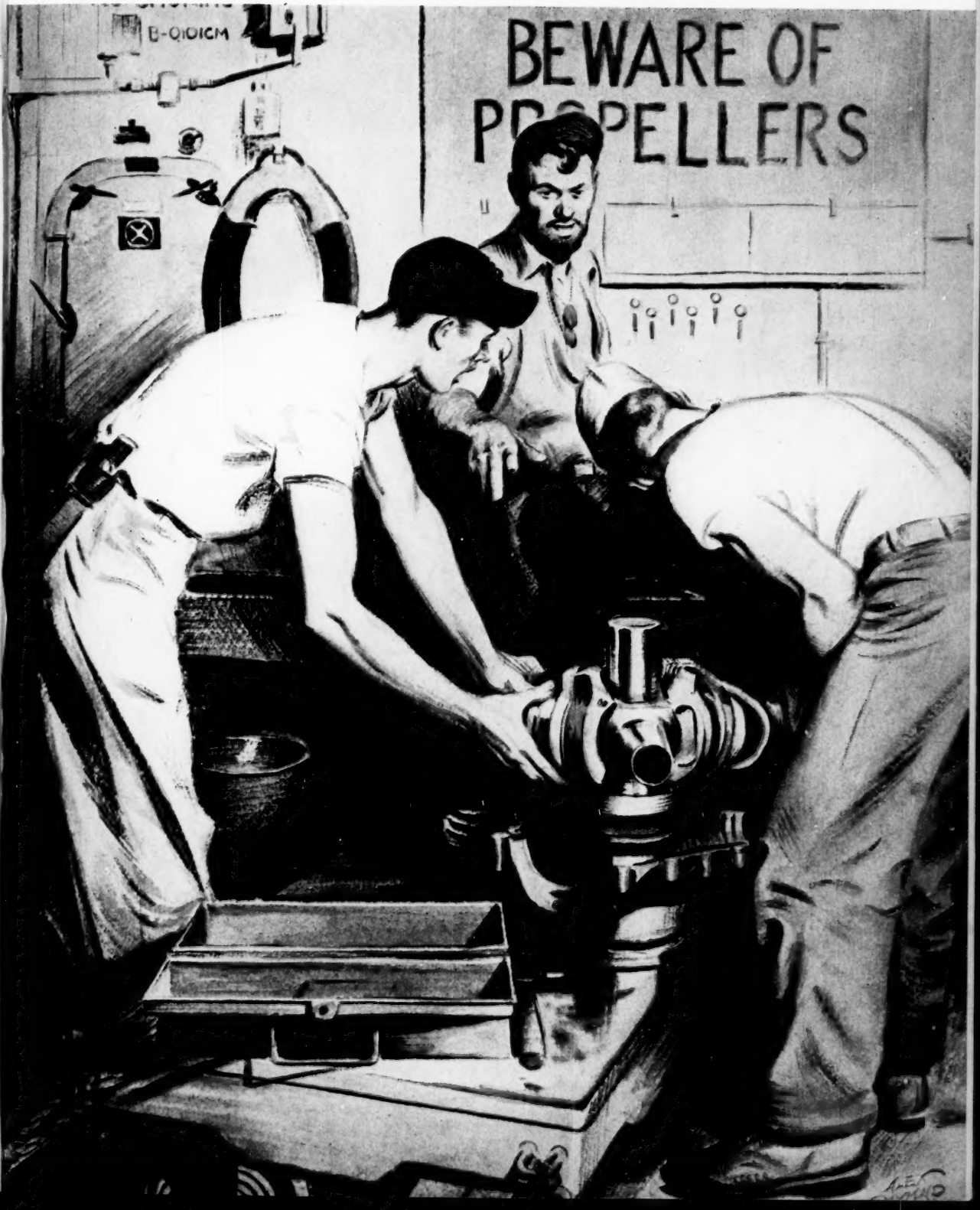
MARINE CORPS

Gazette

MAY, 1946 30c



THIS MONTH'S COVER

THIS month is Capt Alexander Raymond's second appearance on a GAZETTE cover. His sketch of three Marine mechanics sweating over a propeller adjustment on the hangar deck is another facet of life aboard an aircraft carrier with a Marine fighter squadron. Capt Raymond, now released from active service, is probably best known for the creation of the fabulous "Flash Gordon." He recently introduced a new adventure strip "Rip Kirby"—whose hero incidentally is a reserve Marine officer.

THE MARINE CORPS GAZETTE

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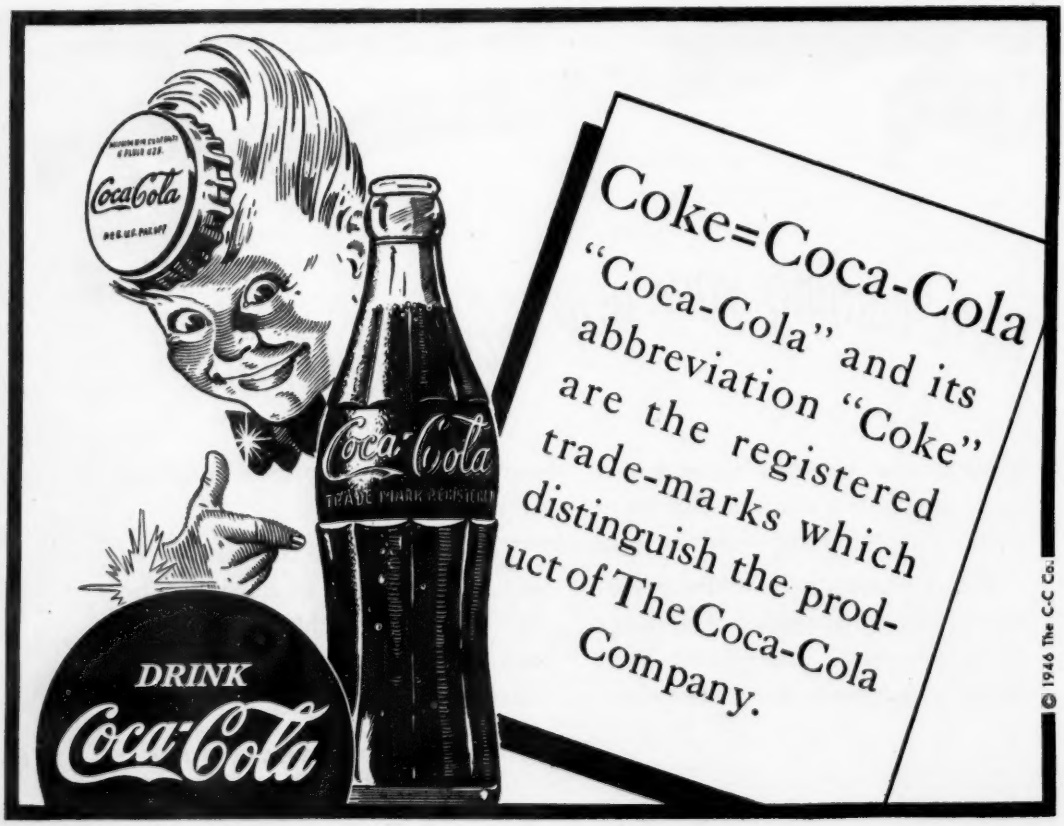

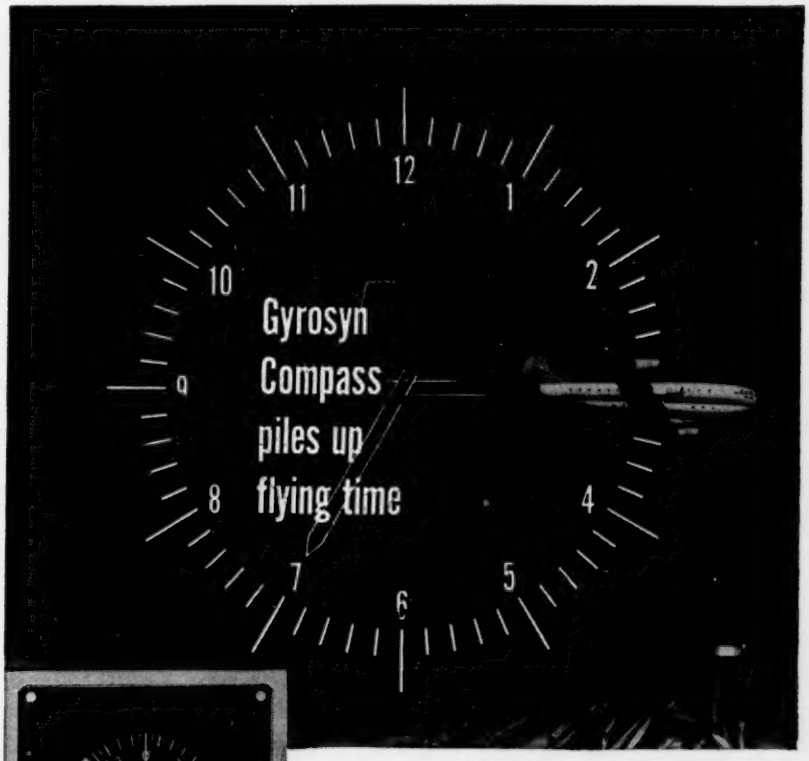

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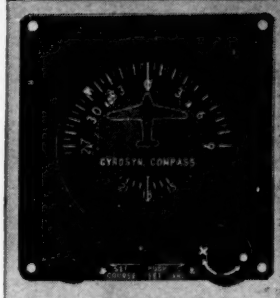

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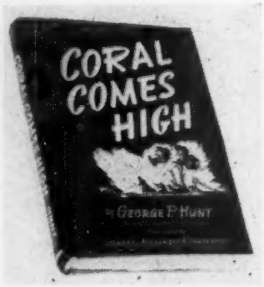

CORAL COMES HIGH

by **CAPT GEORGE P. HUNT, USMCR**

The story of Co. K, 1st Marines, and their first action-packed hours on Peleliu!

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TWO NEW BOOKS
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Passing in Review

THE CASE AGAINST THE ADMIRALS—William Bradford Huie. 216 pages. New York: E. P. Dutton and Co. $2.50.

Reviewed by Captain Ira E. McMillan, USN.

This book is another of a series of articles, publications, and books currently appearing on the controversial subject of unification of the armed forces. The title is very descriptive of the contents therein. Mr. Huie poses as the crusading and hard hitting district attorney determined to get a conviction at all costs and places all the admirals and the U. S. Navy in the prisoner's dock. By ignoring or passing lightly over the arguments normally open to the accused, the accepted procedure for a prosecutor, he proceeds to build up the case for the prosecution. If we concede that the prosecuting attorney should be able to do all the talking in a case, we may safely say that the author has done a good job in writing this book.

However, it should be remembered, and it will be remembered by sober-minded readers, that no issue should be decided without first hearing all sides of the question. Along the same line of reasoning, it is believed that a sharp rebuttal of some of the "facts" presented in the book would leave Mr. Huie in need of a very convincing closing argument in order to prevent his case from being thrown out or dismissed for lack of evidence.

The general trend of the book is to gloss over or divert attention from the magnificent accomplishments of our Navy and Marine Corps during the great war recently ended. This is strictly in line with the standard procedure of the prosecutor who presents only the evidence that will obtain the conviction of the accused.

One of his conclusions, discussed at some length, states that naval officers, particularly the admirals, and by inference, the Marine Corps generals, are generally discouraged or are prevented from setting forth their views on naval and military matters of intimate concern to them and that they are throttled to the will of their superiors by the selection system. All the Fleet Admirals, each renowned for his capabilities and absolute worth, are indicted for vacillating and for toying with the security of the nation in order to further their own ambitions. Some discerning readers will thus be forcibly reminded that Fleet Admirals, Leahy, King, Nimitz and Halsey are typical naval officers who proceeded to interject their individual ideas and personalities force-

Current books of interest to Marine readers

fully into the solution of complex problems with such success that the Axis and their oriental fellow conspirators had to throw in their sponges with the knowledge that they had been completely beaten.

On page 136 of the book, the author states: "A battleship loses its reason for being when it doesn't have another battleship to fight." Is it possible that Mr. Huie is unfamiliar with the role of the battleship in the amphibious war of the Atlantic and Pacific? Time and time again battleships blasted the way for the troops. Remember Africa, Sicily, Italy, Normandy, Attu, Marshalls, Gilberts, Marianas, Iwo Jima, Philippines and Okinawa? And at Surigao Strait the battleships ceased fire on their shore targets and went forth to do battle to the Japanese battleships with complete success.

The references made to the Marine Corps are facetious to say the least and border on the impertinent. Bare mention is made of the fact that Iwo Jima was captured with the life and blood of many Marines, and no notice at all was taken that they gave their lives for the sole purpose of assisting the Army B-29 to pulverize Japan with tremendous reduction in the losses of Army flying personnel. Contrary to the opinions expressed by layman Huie there are those who believe that Japan was conquered primarily by sea power. Sea power made it possible for the B-29 bombers to reach out to the heart of the empire. Foot soldiers, carried by sea power, captured bases and finally Japan itself. Sea power landed the troops on the continent of Europe and kept them supplied with vital materials. Layman Huie keeps his eyes up in the clouds however, and sees only the airplane.

Many so-called facts cited in the book should be accepted with caution. It is unfortunate that Mr. Huie did not read Fleet Admiral King's combined report on the U. S. Navy at war during the period 1941-1945 inclusive. This would have been a good source for a check on factual material and the author would doubtless have seen the weakness of many of his conclusions.

Mr. Huie would also do well to read Representative Vinson's recent article on the proposed merger of the armed forces. In particular the author should carefully consider the last paragraph in that article: "There have been periods in our development when the people of the United States have forgotten that we are a naval power. But in times of crisis—1812, 1898, 1917 and 1941—it was our reliance on sea power that preserved us and brought us victory. The spearhead of our sea power must be a strong and independent Navy. That Navy has and will continue to exercise coordination with the other arms, but it must never be subordinated to them."

CORAL COMES HIGH—Capt George P. Hunt, USMCR. 147 pages. New York: Harper and Brothers. $2.00.

Coral Comes High is the story of Co K, 3d Bn, 1st Marines in the Peleliu landing. It is also the best small unit combat narrative since John Hersey's *Into the Valley*.

The book follows a familiar pattern—there is nothing particularly original in its bare outline: Co K loads out of its coconut grove camp in the Solomons and endures the cramped inconveniences of life aboard an LST. It lands across a reef onto a tough section of beach and goes through the initial confused phase of a beachhead assault. Then Co K finds itself in possession of its objective—a point of coral on the extreme flank of the beachhead. The loss of this point would threaten the success of the whole landing. Co K holds the point in spite of frantic efforts by the Japanese to dislodge them.

Capt Hunt

Other rifle companies have been in similar predicaments in other landings and other stories have been written about them. What makes *Coral Comes High* a superior combat narrative is the skill of its author, Capt George P. Hunt, who commanded Co K and won the Navy Cross for his part in the action described. His intimate knowledge of his company and its fight is coupled with a very fine writing style. The simplicity and unity of the book give the effect of a short, well-knitted novel, rather than a piece of factual non-fiction.

Capt Hunt tells his story objectively. He sketches the characters and doings of his marines tersely and effectively, revealing his confidence and admiration for them without being maudlin.

The book is illustrated with pen drawings by the author which, while graphic, leave something to be desired.

Now a writer on the staff of *Fortune* magazine, Capt Hunt was born in Philadelphia, attended Haverford School, graduated from Amherst, and

Passing in Review

(Continued)

traveled extensively in Europe. In addition to the Navy Cross received at Peleliu, he holds the Silver Star and four battle stars. E.H.K.

THE LONG AND THE SHORT AND THE TALL —Alvin M. Josephy, Jr. 221 pages. New York: Alfred A. Knopf. $3.00.

Alvin M. Josephy, Jr., was a Marine combat correspondent with the 3dMarDiv, and he tells the story of Guam and Iwo as seen and fought by himself and the men around him.

The Long and the Short and the Tall, which lifts its title from the chorus of the ribald "Bless 'Em All," starts with the loading out of the Division from Guadalcanal in May 1944. Step by step he takes the 3dMarDiv through a year of history.

From Guadalcanal, the convoy sailed north to the staging area in the Marshalls, then west to Saipan where the Third Amphibious Corps was held as floating reserve. Then, while the Navy contended with the Japanese fleet, back they went to the Marshalls, and finally once more steamed westward, landing at Guam on 21 July 1944.

Sandwiched between the Saipan and Peleliu operations and overshadowed by the Army's advances in Normandy, the Guam landing created little stir among the American press and public—a fact to which Josephy continually alludes with some bitterness.

Best chapter in the book is "Banzai!" which records the fantastic, drunken Japanese attack which very nearly crumpled the thin line of marines which held the ridge forming the center of the beachhead perimeter.

After the island was optimistically declared secured, the Division continued to fight—the mopping up operation that is sometimes called "the second battle of Guam."

As an interlude before the Iwo campaign, Josephy records with sympathetic interest something of the tribulations of the native population.

Then combat loading for the Bonins began and the 3dMarDiv sailed for the mysterious pork chop shaped chunk of lava which was to become perhaps the most famous name in Marine history.

At first the 3dMarDiv was slated to be floating reserve, but the heavy casualties received by the 4th and 5th Marine Divisions forced the early commitment of the 21st Marines.

The 21st Marines were hurled against a heavily fortified belt—afterwards 800 pillboxes and blockhouses were counted in an area 1,000 yards long and 200 yards deep. In two days of assault, the 1st and 2nd Battalions received almost 50 per cent casualties. On the third day, the still fresh 3rd Battalion followed a heavy barrage with a bayonet and grenade attack. In 90 minutes, the sector was taken. Then the 9th Marines came ashore to replace the weary 21st.

In pithy and unpretentious style, Josephy tells his story with remembered conversations and anecdotes loosely strung together. The dialogue and reactions of his marines are accurately recorded. His exaggerations and limited perspective are forgivable; they are the natural distortions of a foxhole view. The book is well illustrated by a frontispiece by John R. McDermott and 32 Marine combat photographs. E.H.K.

PLOWING THE ARCTIC—G. J. Tranter. 311 pages. New York: Longman, Green and Co. $3.50.

A Royal Canadian Mounted Police patrol boat *St. Roch,* skippered by hard-bitten Sergeant Henry Larsen, makes a west to east traverse of the Northwest Passage. The 80-ton schooner travels 10,000 miles and is gone 28 months—from 1940 to 1942. *Plowing the Arctic* is a good book for arm chair Arctic explorers. Others are apt to find this detailed account of Eskimo and schooner life a bit tedious.

EARTH COULD BE FAIR

by Pierre van Paasen. The eternal story of mankind as reflected in a Dutch town set against the tumultuous history of the twentieth century. By the author of "Days of Our Years," it portrays his limitless love for humanity and his prophetic hope for a new and fairer world. **$3.50**

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THE MARINE CORPS
THE PROFESSIONAL MAGAZINE
FOR UNITED STATES MARINES

Gazette

MAY 1946

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Have You Anything to Say?

The MARINE CORPS GAZETTE is a professional magazine for Marines. As such it is largely dependent upon its readers for its editorial content. Subject matter is virtually unlimited as long as it has strong Marine interest and is of post war significance. The GAZETTE wants and needs military articles of all types: battle narratives, tactical theory and analysis, new technical trends, historic pasts, and contemporary military-political events, to cite a few possibilities.

Although the activity of the Marine Corps in World War II may be contained in the official records and reports, the GAZETTE feels that many of its readers have unrecorded stories to tell. It aims to present these "still fresh" war experiences to round out the broader picture of amphibious war.

GAZETTE "style" emphasizes accuracy and readability rather than literary polish. Lengths vary from short "fillers" to full 3000 word features. Pieces longer than 3000 words, if sufficiently strong, are used in two or more parts.

All articles submitted should be illustrated with photographs, maps, or sketches wherever possible. Acknowledgment is made upon receipt of all manuscripts. This is followed by a letter of acceptance or rejection after the article has been evaluated by the editorial staff. Payment is made at current space rates upon publication.

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RED MARINES . . .

To the Germans' consternation, the Russians, who had no Marine Corps, did have marines.

By Capt Edwin Klein

THE Germans knew at the war's beginning that no organized marine units existed within the Red Navy, so it was a perplexed Nazi intelligence that began reporting the presence of previously unidentified—and unsuspected—"marine regiments" on the Russian front.

At first, they were just an emergency force. In the terrible summer and fall of 1941, with the Red Army reeling back before the armored might of the *Wehrmacht*, the Red Navy formed provisional brigades, similar to army units in organization, of all available naval personnel to help halt the Nazi drive. These brigades had about 4,000 officers and men, and in all about 31 brigades or 125,000 men were so mobilized.

These special brigades, which soon took the designation "marines," were used on all fronts. They fought desperately and well in the epic defenses of Sevastopol, Leningrad, and Moscow.

Then, as the Russian staff began to realize the potentialities of shock troops with an aquatic background, Red marines were used for commando-like raids on German positions edging the Baltic and Black Seas. As the Russians began to take the offensive, the Red Marines began to develop into an amphibious striking force.

The evolution of Red amphibious tactics is strikingly shown by the comparison of three Red Marine operations: Novorossisk, Petsamo, and Shimushu. These are strange names, unfamiliar to most Americans, but, in their way, they are as significant as Guadalcanal, Saipan, and Iwo Jima.

Novorossisk was the second most important port on the Black Sea. It had a peacetime population of 140,000. The Germans took the city after a typically bloody campaign in 1942. Possession of the city did the Nazis little good for they could not dislodge nearby Russian artillery which continued to interdict the city and denied the Germans any profitable use of the port.

But by the summer of 1943, the Germans still held Novorossisk and had fortified it heavily. The Red Army's lines were drawn at the city's outer defenses and there the situation was stalemated.

The Soviets decided on a coordinated amphibious attack with marines as the assault troops.

The selected Marine units from the Black Sea Fleet went through a program of special training. The Reds had not developed specialized landing craft comparable to American equipment, but they did their best with the small

Auto riflemen from the Baltic fleet marines attack in skirmish line across marshland.

boats available—and the Russians can be masters at improvisation. The scheduled assault was rehearsed thoroughly.

The landing was to be supported by massed fire from land-based artillery, bombardment by the Black Sea and North Caucasus air forces, and naval gunfire from the Black Sea Fleet.

On the night for the attack, the Red Marines embarked in their landing craft in moonlit silence. As they approached the harbor, the Germans periodically threw star shells and flares over the water, but the flotilla of small craft was not spotted. From the landward side of the city came the usual front line sounds—sporadic artillery and machine gun fire. No indication yet of the attack to come.

Then like the snapping of a spring under mounting tension, the attack burst on the Germans. Artillery concentrations from hundreds of guns rolled through the city.

First in the harbor were the torpedo boats, blasting a way for the marine-laden small craft. The landing points were reached on schedule although inadequate landing equipment caused disproportionately high losses. Once ashore, the marines stormed up the shell-shattered streets

Bodies lie huddled in the sparse grass which offers no cover for the advancing Russians.

Sailor uniforms on some indicate the naval origin of the special Red marine brigades.

toward their designated objectives.

This unexpected amphibious thrust thoroughly disorganized the internal defenses of Novorossisk. For five days, the relatively small landing force held the heart of the city until the Red Army under LtGen Petrov smashed through the outer defenses to their relief.

The Russian fondness for a large volume of small arms fire was justified by the exploits of a company of automatic riflemen under CaptLt Raikunov, who won the coveted award, Hero of the Soviet Union. CaptLt Raikunov's company fought its way through to the railway station in the center of the city and held it for five days, keeping his navy flag flying in spite of repeated asssaults by German tanks, artillery, and infantry.

Moscow fired 12 salvos of 124 guns in salute to the capture of Novorossisk.

Petsamo was a slightly different proposition.

Petsamo is the northernmost port in Finland. It lies about 75 miles northwest of the Russian port of Murmansk. The Germans had held the Finnish town since early in 1941. To them, it was an important port. Through it flowed men and supplies for the Arctic front. From it, sore-

Mounds in the background are apparently neutralized enemy blockhouses or pillboxes.

ly needed nickel was shipped to Nazi homeland arsenals.

By late summer 1944, the northern front was stationary. The Red Arctic fleet harried the German convoy line to Petsamo with submarines and aviation, and, in turn, the Russian supply line to Murmansk was harassed by the German *Luftwaffe* and U-boats.

The addition of American-built motor torpedo boats and sub-chasers to the Russian Arctic fleet proved so effective that the Soviet command began to think in terms of an amphibious assault on Petsamo.

The German strength at Petsamo and its surrounding defenses was estimated by the Russians to be two air-infantry battalions, two ordinary infantry battalions, 18 artillery batteries, plus special harbor defense troops.

This was not an impressive total in terms of men alone, but the defenses were potentially strong in that the area had been heavily fortified with Teutonic thoroughness.

The Reds already faced this force on two sides; on the north with land naval forces and on the east with elements of the Red Army. As at Novorossisk, the prospect of an unsupported frontal assault on the German positions was considered overcostly.

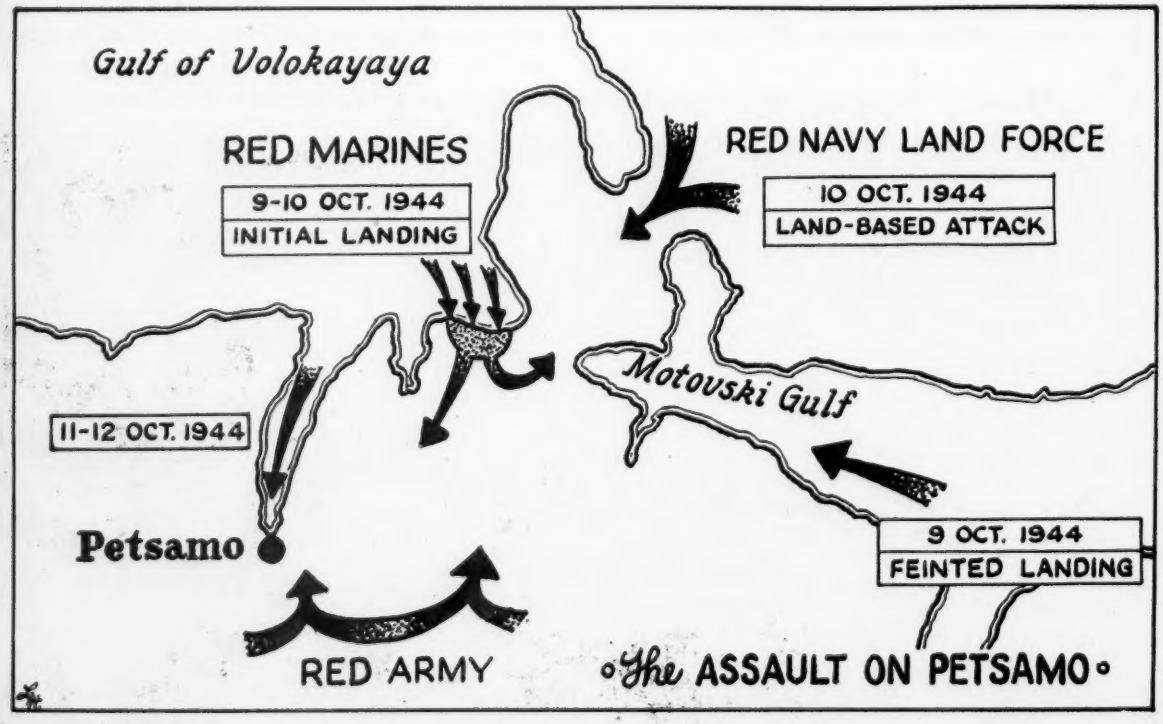
The attack began at 2300, 9 October 1944, when the Russians feinted a landing at Motovski Gulf. The effect of the ruse was accentuated by a naval shelling from two Russian destroyer escorts.

Simultaneously, with the Motovski diversion, 3,000 marines landed at three points on the Gulf of Volokovaya—their organization approximating a battalion landing team at each point. Beach characteristics were low visibility, deep water, and a rocky shore line. The marines landed using ramps and gangways from 11 110-foot sub-chasers, 12 motor torpedo boats, all U. S. built, and eight small Soviet boats. Personnel loading was 60 men to a sub-chaser and 100 to a motor torpedo boat—which the Russians habitually mis-call a "Higgins boat." Wave interval was one-half hour.

Complete tactical surprise was achieved; there was no opposition and no boats were lost. When the Germans did discover that a landing had been effected, their fire was disorganized and ineffective. To the north, land naval forces were already in contact with the German defenders. Promptly at 0300, they launched their attack. At 0900, the landing party attacked in support of this drive and the Germans were neatly boxed in the narrow isthmus known as the Middle Peninsula. Retreat was impossible and nearly all of the Nazis were killed.

The assault on Petsamo proper came two nights later. A landing team of 700 marines proceeded up the narrow channel or fjord that leads to Petsamo in eight "Higgins" boats and six sub-chasers.

The attack was singularly successful in that although the Germans were alerted, the landing force moved in through torpedo net booms and landed between the docks with only light losses even though under machine-gun fire. The Ger-



The ASSAULT ON PETSAMO

Line of Red Marines deploys, waits for artillery barrage to lift before moving forward.

man heavy guns—150 and 210mm batteries—were completely useless and the Red Marines seized the mined wharf and dock facilities before they could be exploded by the Germans.

Afterwards, the Russians attributed much of the success of the operation to the seaworthiness, speed, and communications of the U. S.-built sub-chasers and "Higgins" torpedo boats. According to the Russian story, the Finns did not interfere with the Red assault nor participate in the German defense.

Last Russian amphibious strike of the war was against Paramushiro and Shimushu in the Kuriles during the brief campaign against the Japanese in August 1945.

The Jap garrison on Shimushu was estimated to be 10,000. The island had been heavily pounded by American bombers, but the defenses were known to be typically Japanese—well-camouflaged and underground.

The Russian landing force—a combined team of about 10,000 Army and Navy personnel—loaded out of Petropaulovsk on the coast of Kamchatka in a variety of ships and landing craft convoyed by a few escort and armed hydrographic vessels.

It was a pre-dawn landing. The landing of the first wave of marines was a complete surprise to the Nip garrison—so much so that they were caught in the middle of their regular routine and the island commander, a brigadier general was still in bed.

The second wave, made up of bluejackets, was not so lucky. The now-alerted beach defenses put up a stubborn fight and second wave losses were high. Six out of 17 landing craft were lost. Succeeding waves, however, landed against much lighter opposition. Three days of fighting, characterized by the Russians as hard and bloody, followed. The Japanese used tanks, something which the Reds had not expected and for which no special preparations had been made. Of the 120 tanks used by the Japanese, 40 were destroyed according to the Russians and the rest captured.

A lighthouse with the sunken USSR tanker *Mariupol* at its base proved an unexpected strongpoint. Concealed in the hulk of the wrecked ship, the Japanese had mounted a number of small, rapid fire cannon—evidently 40 or 50mm—and the ultimate capture of the point by the Reds was difficult and costly.

Damage caused by the American air raids was much less than anticipated. The Japs had fooled our joint intelligences with very elaborate deceptive devices, including dummy "oil tanks" of bamboo while the real fuel reservoirs were safe and unharmed underground. To heighten the illusion of destruction, the Japanese used smoke and flame producing apparatus.

On the third day of the Russian assault, the Japanese commanding general was captured and the island's garrison surrendered. The Reds reported 28,000 prisoners—a number far in excess of pre-landing estimate of the garrison's

Marine scouts prepare an ambush for their German guests on the craggy Northern front.

strength—and listed 2,000 Soviet casualties. (Author's note: It seems incredible that a Japanese island garrison would surrender *en masse* to a numerically inferior enemy after only three days of battle. Perhaps the 28,000 Japanese included a large proportion of civilian technicians and laborers—or perhaps the garrison commander knew the war was in its last days and that Tokyo was about to capitulate.)

The three Russian landings reviewed here—Novorossisk, Petsamo, and Shimushu—were made by three different Red Fleets—the Black Sea, the Arctic and the Siberian. The enemy, the terrain, and the circumstances differed. But the similarities in the methods and tactics of all three are apparent and even a superficial study reveals a brief pattern of Russian amphibious doctrine.

Emphasis was on tactical surprise. This was achieved by the use of night landings and diversionary ruses. It was necessary because the Russian lack of suitable landing equipment and of a fleet capable of sustained naval bombardment made American rock-crusher amphibious tactics impossible.

Emphasis was also on improvisation. The Russians lacked a landing force so they created "marines" from their existing naval personnel. Specialized landing craft were almost non-existent; they made existing small boats, supplemented by American-built equipment, suffice.

Moscow is silent on the subject of the postwar future of the Red Marines. As yet the existence of an organized corps of marines has not been admitted. Perhaps it does not exist. But it is certain that the past war has taught the Russians the value of a specialized amphibious force. **END**

Soviet Marines were organized along army lines, were fond of automatic weapons.

Scattering Japan's War Might

The Fifth Phib Corps disposition officer tells of one of the Japanese occupation forces' most serious problems—the disposal of enemy armaments. ***By Col J. P. Berkeley***

WHEN the Fifth Amphibious Corps landed at Sasebo, Kyushu, Japan, on 22 September, we quickly became aware of a problem that had received very little previous thought. There, waiting for disposition, were vast stores of naval equipment, shipbuilding materiel and ammunition in quantities that would tax the storage facilities in the Hampton Roads Area..

Japanese naval authorities did provide inventories for the Sasebo Area, but they were by areas and not detailed by building or magazine, and they had been prepared in Japanese; 13 volumes of rice paper. In other areas the Japanese Army furnished very accurate and detailed inventories in a language that resembled English.

The balance of September was spent making detailed inventories of all installations. Simultaneously, the Special Staff officers of both Corps and the divisions were finding signal gear, engineering equipment and countless other items needed for immediate use. The U. S. Navy discovered considerable quantities of manila line. Since they had not seen this type of line for many months, all of it was turned over to the forces afloat.

While these inventories were being made, all small arms, swords, and certain types of individual equipment were being taken from the Japanese. Swords turned up by the thousands, some good, some fair, and about 39,000 rusty and unserviceable.

On 14 October 1945, directives on what was to be done with all this materiel reached us from Sixth Army headquarters. These directives came in the form of an administrative order with 11 attachments. Attachments were issued on war trophies, war memorials, signal materiel, engineer materiel, medical supplies, quartermaster supplies, chemical warfare equipment, transportation, naval supplies, and ordnance materiel.

Corps order prescribed the establishment of disposition sections within Corps, divisions, regiments, and battalions and directed that an experienced field officer be placed at the head of each division disposition section. Some of these sections were made subordinate to the G-4s and some were made separate special staff sections. Eventually all of them that remained in operation after 1 January 1946 became separate special staff sections.

Three methods of disposing of captured and surrendered materiels were prescribed: (1) all equipment, materiel and machinery which had been primarily for warlike purposes would be destroyed, (2) all materiel required by occupational forces would be picked up for such use and (3) all other materiel and scrap resulting from method (1) should be turned over to representatives of the Japanese Home Ministry on their receipt.

Each division was made responsible for disposition in its own area and the Corps Disposition Section was established to coordinate the activity of the Second and Fifth Marine Divisions and the 32nd Infantry Division.

These reports had to reach Army headquarters in sextuplicate and were supposed to cover the period ending at 2400 on Saturday and reach Army headquarters by 1700 on the following Wednesday. Fortunately, reporting categories were kept to a minimum and great detail was not required.

In recent months, due to a change in the higher echelons of command, these reports have become more complicated and exhaustive. This new form covers approximately 160 sheets of legal paper with both sides being used. Luckily, this report is required only twice a month.

In accordance with surrender terms, the Japs were required to report the location of all military and naval stores. Generally speaking, all dumps were reported. However, constant patrolling by "disposition patrols" has revealed numerous unreported disposition targets. It is believed that the Japanese themselves had lost all records of the majority of these "discovered" dumps.

In order to get disposition underway, a wide delegation of responsibility was necessary. In general this followed the normal command channels down to and including companies and batteries. "Depot control groups" were established at disposition targets or in places central to a group of targets. Here is where the actual work was done and basic reports started their trek up through the chain of command. Each depot control group was in charge of an officer or non-commissioned officer who employed as many

Japanese field telephones, radios, signal, and radar gear are crushed by medium tanks.

Japanese laborers as necessary and maintained stock record cards on materiel disposed of or destroyed.

The Japanese Home Ministry was required to appoint representatives that would be available to these depot control groups. It was this Japanese official who would receipt for materiel or scrap returned to the Home Ministry.

Materiel for which occupation forces had no use and which could not be used in war or warlike exercises was turned over to the Home Ministry in place without delay. However, the lack of transportation often kept Home Ministry officials weeks behind their receipts.

Thousands of items came under this category: ship fittings, every conceivable type of electrical fitting, motors, paint, etc. About the first part of November, authority was received to return certain types of explosives to the Japanese for mining and other legal commercial use. There existed so many thousands of tons of picric explosive that the Home Ministry stated they could not possibly use it in years. Later we were permitted to return large amounts of inert projectiles and brass cases giving Japan tremendous quantities of scrap.

The materiel collected for use of occupational forces included everything that could be used to improve and winterize billets, improve the appearance of living and recreational spaces, and satisfy normal Marine "pack rat" impulses.

The disposition of weapons presented no major problems except that there were thousands of everything. Rifles were issued as trophies in quantities that flooded the market. Heavy weapons, mounted in defense positions, were destroyed by normal demolitions. Weapons that were in storage were smashed, burned by acetylene torches, or blown by shaped charges. Certain types of weapons such as tanks, were set aside for shipment to the War Department for use as village, town, or city war memorials.

Signal equipment was looked over carefully and such materiel as had commercial use was returned to the Japanese. Field radio equipment, field telephones and radar gear were piled up and crushed by medium tanks, a very effective and rapid procedure. Later, directives from higher authority required the assembling of all radio and radar equipment in central areas where Japanese technicians were authorized to salvage certain parts, under American supervision.

Aircraft—civilian as well as military—were destroyed by burning. If the Japanese could strip the aluminum from the planes without delaying disposition they were allowed to do so prior to burning; if delay was encountered, the planes were burned as they were. Burning procedures varied, but the most spectacular fires were those in which napalm was used. At the Sasebo seaplane base, planes were bulldozed into piles of about 60 planes. Tanks of the Fifth Tank Battalion would then spray the pile with raw napalm, after a good saturation was obtained, another flame tank would ignite the doomed planes.

Great amounts of scrap resulted from these destruction methods. This was turned over to

A flame-throwing tank touches off a pyre of Japanese planes soaked in raw napalm.

the Japanese as ferrous, aluminum, or copper alloy scrap, all by estimated tonnages.

The disposition of ammunition gave no one pleasure and caused untold trouble, worry, and heartaches. Four methods of ammunition disposal were authorized: burning, detonation, dumping at sea, and reclamation. Elaborate safety precautions were prescribed, based upon American ammunition methods and commonsense handling. On a whole, these rules and regulations were good but they did not take into consideration certain local and typically Oriental customs.

The Japanese worker is inherently careless; he does not value life too highly and he is inquisitive. Orders required that all actual work be done by Japanese labor under American supervision. The language barrier was great, we did not have many supervisors available and we did not want to expose too many Americans to the dangers existing at any ammo point.

Perfect supervision would have required a Japanese-speaking American with each Japanese worker. For instance, a group of Japanese would be shown how to open a case of small arms ammo, the supervisor would turn his back or go to another group. Looking back he would be horrified and often petrified to see a worker swinging the pick into the middle of the case.

The porcelain hand grenade with the match type striker greatly fascinated the workers; they were often stopped just in time from blowing all concerned into kingdom come. One fire was started in a magazine stored with pyrotechnics and picric acid by a worker who decided to see what made a parachute flare work; only quick thinking by two supervisors prevented a serious explosion.

Japanese storage was in complete disregard of orthodox procedures. Magazines and caves contained a variety of items. Black powder, primers, fuses, boosters, gains and pyrotechnics would all be stored together. Yet there is no record of the Japanese ever having had a major disaster such as the Lake Denmark explosion.

The detonation method was used to some extent in the destruction of large caliber shells or bombs in inland areas. Large quantities of small arms ammunition were destroyed in "popping ovens"—a rapid means of destruction.

Dumping at sea was the easiest and safest means of disposal. Of course the practicality of this method depended upon the nearness to sea areas and the availability of Japanese barges and tugs. The use of American craft was prohibited as was the transporting of any supervisory personnel on Japanese barges or tugs. Supervision was exercised by escort vessels in unmined waters and by OY aircraft surveillance when mined waters had to be navigated by Japanese barges.

Tugs and barges were obtained from the Japanese through the Home Ministry. This equipment usually belonged to civilian firms who worked under contract with the Home Ministry, the contractor furnishing all shoreside labor as well as barging facilities.

As a rule, ammo was hauled ten miles from shore and dumped in about 50 fathoms of water. Regulations required that all containers be opened just prior to dumping. Because super-

visory personnel were not actually present, the opening of boxes was not always accomplished Some explosives have washed up on the shores of Kyushu and several fatalities among curious Japanese have resulted.

At Tosu in Saga Prefecture, there existed a dump that contained one-eighth of all the loaded artillery projectiles in the Empire. This dump being well inland, dumping appeared out of the question, detonation in place highly undesirable. Disposal of this immense stock was accomplished by hauling it to the railroad by truck. loading it on freight cars and moving it to Karatsu—a rail distance of about 45 miles. There it was loaded on barges and moved to sea. Over 10,000 tons have been moved since 1 December 1945.

Reclamation has been a little used process. The Japanese do not, in most areas, have the equipment to reclaim loaded shells. However, in the Yawata area, the steel mills set up a steaming process and thousands of tons of shell were hauled into Soni where the explosive was steamed out and the scrap used by the steel mills. This process continued until recently when higher echelon forbade further such reclamation. The result of this stoppage is that there are 7,000 tons of shell at Soni that must be reloaded and transported to a barging area.

Torpedoes presented several problems, the experts disagreeing on how they should be handled. After much discussion it was decided to make exception to the general rule and use American craft for the dumping of those that could not be detonated in place. An LST was assigned this work in the Sasebo Area and spent two and a half months ferrying "fish" to sea. All "fish" so handled were without warheads which were disposed of by Japanese craft equipped with booms.

The handling of all of this ammunition was not without accident. Many accidents occurred, both American and Japanese casualties resulting. Even though every precaution was taken to prevent injury to American personnel, it was inevitable that we would have marines injured.

Four major accidents highlighted the disposition program. In November, an Army Depot Control Group had a fire get out of hand and set off a large tunnel type magazine, result: 111 Japanese dead, 112 injured, 75 houses destroyed and 50 acres of rice burned out.

The same week, a barge load of fuzed 120mm shells, which had been stored under the quarters of the Eighth Service Regiment's commanding officer, exploded at sea, killing eight Japanese and wounding seven.

On New Year's Eve, a barge load of 220 depth charges exploded. Four-ton sections of a steel barge were blown 400 to 500 yards, resulting in 14 Japanese and one marine dead.

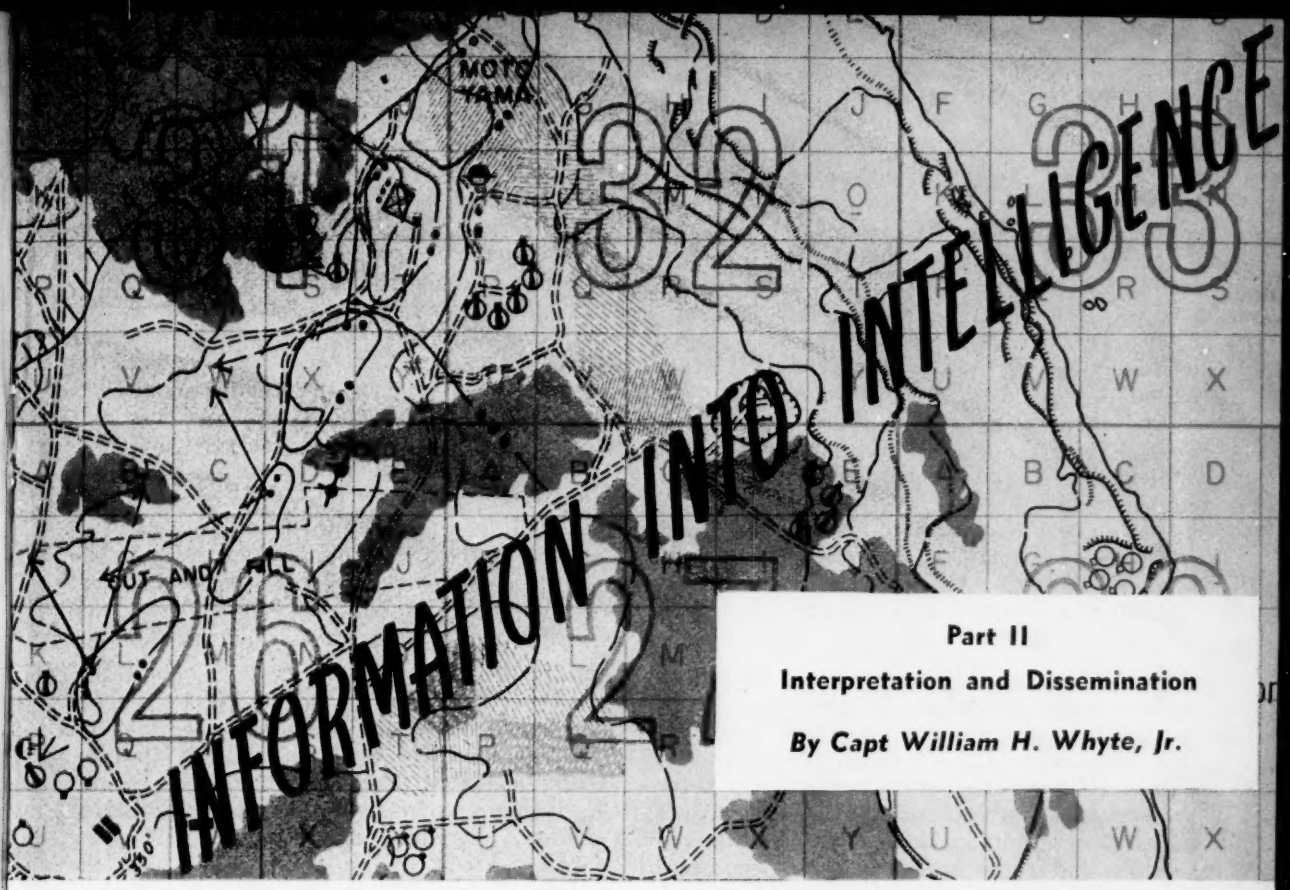
Shortly after the first of the year, an empty barge was approaching a loading point to pick up several tons of smokeless powder to move it to the burning area. The Japanese ordnance supervisor saw a charcoal brazier on the barge and told a crew member to throw it over the side; he did, right into the pile of powder. The fire spread to a storehouse full of picric acid which burned without detonation and did not set off 700 depth charges in a nearby cave. The experts still wonder why the picric did not detonate.

All of the work was difficult for persons who were unfamiliar with the many types of Japanese munitions. For technical advice there was available the VAC Bomb Disposal Company and Navy Bomb and Mine Team No. 4. In addition, certain former ordnance personnel of the Japanese army and navy were employed to supervise the Japanese workers. Any future occupation force should be well supplied with ammunition technicians; present T/Os do not allow enough for the job.

In war trophy distribution, principal items desired were swords, pistols, binoculars and rifles. Rifles were no problem—everyone could have a rifle (subject to the "one firearm per individual" restriction), but everyone did not want a rifle. Initially Sixth Army orders classified swords, pistols and binoculars as "controlled items." The object of this control was to allow time for inventories to be completed and to see how many were available prior to allocation. During the period of control, by Sixth Army order, swords could be issued only to officers leaving the area, pistols could not be issued, and binoculars could only be given to general officers. This resulted in enlisted men who left Japan in September and October not having an opportunity to obtain swords.

Allocations were finally made by Sixth Army in November and from that time on were issued on a basis of length of service and regardless of rank. All units finally received "controlled items" to an average of 62.5 per cent of the respective commands.

This article could list a lot of numbers and quantities; they would be large numbers. They would run to eight and nine figures, and the reader would get eye strain from reading; rest assured that the task was enormous. END



INFORMATION INTO INTELLIGENCE

Part II

Interpretation and Dissemination

By Capt William H. Whyte, Jr.

PART I

COLLATION AND EVALUATION

In the first installment, Capt Whyte stressed the continuing importance of basic combat intelligence procedures. In spite of changing methods of warfare, intelligence fundamentals remain the same no matter how many technical devices supplement human observation and communication. While there is general interest in high level strategic intelligence, it is harder to maintain interest in combat intelligence with nothing more stimulating than training exercises. It is also difficult to demonstrate proficiency in intelligence training because it is almost an abstract thing, not readily measured as is skill with a machine gun. Our present G-2 doctrine is a fairly recent development—our Civil War offers many examples, romantic but inefficient, of haphazard intelligence. Information is the raw material of intelligence and must be as complete as possible. It is necessary to collect from all possible sources—patrols, civilians, prisoners, captured documents. First step in collation is an up-to-date journal. From this the material must be sorted logically in worksheet form. An all-important adjunct is a well-kept situation map, complete, but not cluttered with unnecessary detail.

OUR S-2 is quite pleased with himself. So far he's done it all according to the book. His clerk has been methodically recording in the journal every scrap of information that has come in. In the worksheet, a veritable model of neatness, each item has been entered under the pertinent subject heading for easy reference and comparison. The section draftsman has been accurately keeping an elaborate and easily legible situation map.

Moreover the S-2 has conscientiously evaluated each item for credibility, maintaining a properly skeptical attitude about the veracity of his sources. Since his worksheet and situation map have been well kept, it has been easy to evaluate the items for accuracy as well as credibility. With this well-oiled machine turning out a stream of processed information, the S-2 might feel justified in assuming his job done.

But it is still *information*—not intelligence—and there is a world of difference between the two. No matter how neatly packaged, it remains information until it has been interpreted. The S-2 must view the mass of individual items from a perspective sufficient to determine the significance of the whole. If he does not, few will see the forest because of the trees. Yet many intelligence officers are content with turning out something like this:

"Coastwatcher report of 24 October estimates two companies enemy at BUZU-GUZU village. However, photos of 5 November reveal no in-

stallations save a 72′ x 7′ bridge at the mouth of the BUZU-GUZU River. Prisoner taken at ORONGOHUI 7 November did not know strength of enemy at BUZU-GUZU but thought it might be units of the 127th Infantry. SNACPOA Bulletin 81-542 dated 3 November, however, located this unit in the SAPONGI River area but there is a possibility that the barge movement of 14 October from SULIPI transported the 158th Water Purification Company which was identified in POLU as part of the 47th Division of which the 147th was a part, although there is an element of doubt as to this, etc. etc."

Some might be impressed by such a torrent of details, particularly if accompanied by elaborate overlays and sketches. Actually passing on such a report amounts to saying, "The devil with it—*you* figure it out!"

THE S-2 has passed the burden of interpretation on to the troops, for he has done nothing but present them with semi-processed odds and ends of information. They are ill-equipped to do the job, for they are laymen, the S-2 the professional. He has been studying the enemy's tables of organization, their order of battle and the like; the troops have been far too occupied with more pressing matters to worry about such background information.

If they were to receive the bare report, with no further interpretation, that in the Fifth Marines sector several enemy dead had been identified as members of the 38th Mobile Shipborne Brigade, all sorts of widely assorted conclusions could be drawn. Some might think it but a stevedoring unit, others that upwards of 8,000 reinforcements had reached the enemy.

The S-2, however, because of his study of the enemy order of battle might be in a position to make a relatively safe deduction that approximately one company of the brigade was present as the rest of it had been definitely identified in another sector. If he does not accompany the report with such a deduction for fear of "sticking his neck out," his lack of moral courage (and it is just as necessary in a staff officer as in a commander) can provoke only confusion and misunderstanding. The S-2 is the man who must make the interpretation; for others, less qualified, to do so is to court disaster.

In Tunisia in December of 1942, an American tank battalion was making a reconnaissance in force well ahead of their lines when by radio they were ordered to withdraw west across a large river because of the rapid advance of strong German forces. The bridge to the north seeming the quickest route to the west, the battalion commander sent a motorized patrol ahead to reconnoiter, and started the rest of the battalion off behind it.

They had not been marching long when the patrol radioed back that two German Tiger tanks were on the west side of the bridge. Instantly the battalion commander made his decision to turn the column around and march for the south bridge.

Soon it began to rain. The dust quickly turned to deep mire, and the going became more difficult. In another hour there was hardly a vehicle that hadn't bogged down. With the Germans almost on top of them, the commander reluctantly gave the order to destroy the vehicles and ford the river.

When the ground was retaken a few days later, it was found that the motorized patrol had been correct in reporting that there were two German Tiger tanks on the west side of the bridge—indeed, they had been there over a year, abandoned.

THE facts had certainly been correct, but they had not been interpreted. The commander had acted on information rather than the intelligence he would have had if he had paused a few moments to determine the significance of his data. Were the tanks those of an advance guard? Were they merely on an independent scouting mission? Were they, as was common in Tunisia, abandoned? It was an expensive lesson in the pitfalls of short-cutting intelligence procedure.

There is no pat formula for interpretation. The S-2, however instinctive the process might be with him, must conscientiously quiz himself as to the significance of each item. What does it mean in connection with what is already known? Does it alter or add significance to information previously received? Does it clear up any doubtful information? How does it fit in with the current estimate of the enemy situation?

Simple? Perhaps, but as is true with anything requiring exercise of the intellect rather than mere routine, a great deal of mental discipline is necessary. A lazy mind will jump as quickly as is possible to some sort of conclusion. This makes things much easier, for as new items of information come in they are merely interpreted to support the conclusion. This obviates the necessity for rigorously determining the significance of each bit of information, and the S-2 can instead devote his time to drawing up brochures on enemy fortifications.

The diligent S-2, although he might be quite fond of his original estimate, is always ready to recast it in the light of new information. It is no sacred cow needing mental contortions to justify. People instinctively dislike abstractions, unresolved problems, and hence grasp for the concrete whenever possible. This S-2 must struggle against this temptation, and keep his mind resolutely open.

But he cannot be a perfectionist, and forever delay making some sort of conclusion as to the enemy situation. However tentative, there must

At H plus 3 on Peleliu, G-2 was already functioning at 7th Marines' command post.

always be an up-to-date estimate. The S-2 cannot wait until just before making out his periodic report to interpret the pile of messages that has come in the past 24 hours. Were he to do so, the battle might well have been over.

A report might come in early in the morning that dog tags on an enemy body identify the 24th Road Construction Unit. Nothing to get excited about, thinks the S-2 as he makes a cursory examination of the message. He forgets all about it until he sits down at his customary 1800 to bat out his periodic report. Only then does it dawn on him that this innocuous outfit is an organic part of the enemy's 24th Division, a crack outfit new in the area. His belated interpretation of this item might be made in time, but history is full of battles lost because of officers "too busy" with affairs of the moment to analyze seeming unimportant messages.

Even if our S-2 has made a careful interpretation of all his data he still has much to do. The best of intelligence has a very ephemeral value.

It should be obvious that intelligence should be given wide and prompt dissemination. Yet often familiar is the plaint of lower units that the "goldbricks at headquarters" never pass anything down, while, conversely, the S-2 moans that the line units never send anything up. The Japanese were particularly bad offenders on this score, each unit having the idea that intelligence they had garnered was their own special property, and to be guarded zealously from rival outfits.

In two of their campaigns, each echelon from battalion to army held widely differing estimates of the strength of the American troops facing them, few of the situation maps having any resemblance whatsoever between them. Study of the material available to the Japanese at the time reveals that if all of it had been properly disseminated betweeen units, ten minutes of the most casual analysis of the captured U. S. maps, orders, etc. would have given them approximately the correct figure.

This battle between echelons is never present when the intelligence officer takes care not only that routine dissemination is wide and speedy, but also employs a touch of salesmanship to convince lower units he is anxious to serve them as much as possible. Units thus treated are likely to be quite conscientious in relaying their information rather than adopt the attitude of "to hell with them, let 'em come down here and get it themselves."

There is an analogy with the annual reports issued by corporations. Some are a dry mass of figures, full of technical terms about "withholding taxes," "diversification fund," and intelligible to the average stockholder only after some study. Those of the more progressive corporations are basically the same, but are profusely illustrated with graphs and picture diagrams which reduce the statistics to easy comprehensibility. This type of report, though no more accurate than the other, is a good will producer.

The most important kind of dissemination is that of intelligence which must be sent out im-

"The General Wants to Know"

"If you haven't anything to report, say so!" exclaimed an exasperated battalion commander on the radio to his company commanders. He was annoyed that Brigade Headquarters had asked him for information that he was unable to supply until his own officers chose to give it to him.

It is the steady flow of information from front to rear which is required and gives the balanced picture of the battle, without which no general can do his best for his troops. Therefore, they must tell him what they are doing.

Comment: In the recent fighting in the Pacific a Combat Team was committed to the assault on an island occupation. The Division Commander received no report from the CT Commander for a period of about six hours—the General was in a quandary—he had no knowledge of the activities of one of his assault units—no information of the ground gained or lost—no estimate of casualties—no report on supply —in general—no report. Fortunately the unit was progressing favorably and the CO, being committed to a fight evidently thought that he could not take time to report the activities of his unit to higher headquarters. This must not happen again, it might have been disastrous. Infantry Journal, March '46. ★

mediately. Within the headquarters, this is done by personal contact, phone or message, by a situation map in easy reach of all, and by a close working relationship between the G-2 and G-3. In a well functioning command post, dissemination can be almost automatic. Thus, with SOP taking care of routine intra-CP dissemination, the G-2 does not become embroiled in trivia and can accordingly concentrate more upon "the big picture."

For intelligence to be sent downwards, upwards and laterally, there are the regular means of communication. Supplementing these is the recently developed radio intelligence net. With the division G-2 acting as net control, each intelligence section, from battalion up, is in communication with the others. This net adds no burden to the communications sections as the SCR 300s are operated by intelligence personnel. In time, even more efficient means will be developed, adaptation of commercial facsimile transmission and television being two possibilities.

IN addition to intelligence immediately disseminated, there are the reports which are sent out at periodic intervals. The division G-2 usually prepares a daily periodic intelligence report, while the S-2s of battalions and regiments prepare the intelligence paragraph of the unit report. Both are substantially the same as they cover the enemy situation at the end of the period, enemy operations during the period, miscellaneous subjects such as enemy morale, weather, terrain, and finally, the enemy's capabilities.

This brings us back to the initial process of recording and classifying, for if the journal, worksheet, and situation map have been well kept, most of the report "writes itself." The paragraph on enemy capabilities requires real thought by the G-2, but the other paragraphs can be lifted almost bodily from the worksheet. An overlay carefully transcribed from the situation map furnishes the backbone of the factual part of the report and does away with the need for lengthy tabulations of enemy positions, movements and the like. By the end of the war the G-2 Periodic Reports of Marine divisions and corps were models of brevity, the accompanying overlays complete enough that the written parts were uncluttered by a mass of detail.

The intelligence estimate of the enemy situation, actually quite similar to the periodic report, is usually presented orally to the commander and staff, but may be written and distributed to all units, particularly when there has been a basic change in the situation. Prior to an amphibious operation, when the estimate must needs be very exhaustive, it is printed and given the widest possible dissemination.

Besides the estimates and regular periodic reports there may be special reports on a particular subject. A regimental S-2, for instance, might prepare a report on a trail system in front of his unit in anticipation of an attack by another regiment of the division. At the conclusion of an operation, G-2 sections usually work up illustrated studies of the enemy defenses encountered. Also disseminated at frequent intervals may be special studies on enemy morale, new developments in enemy tactics, and the latest changes in enemy tables of organization.

There might be an S-2 who complains that he doesn't get enough prisoners or documents, that the men are too "trigger-happy" with potential prisoners, in short, that the men do not appreciate the importance of prisoners and documents. Yet that same S-2 might have made little effort save for SOPs and training direc-

tives to *sell* the men on this point. The troops, however, might remember when at great personal risk they captured several prisoners and duly sent them up for interrogation—and that's the last they ever heard of them.

Obviously in a moving situation, it would be impossible to supply each capturing unit with a follow-up account of what information was obtained from their prisoner, but a little dissemination along these lines can accomplish a great deal. It impresses the line units not only with the value of prisoners and documents, but also with the fact that the G-2 section is not a remote outfit living in luxurious style with little or no interest in the needs of lower units.

IN ONE campaign, translation of an enemy diary revealed that the writer had spent two weeks in the line opposite a particular Marine battalion. The battalion commander was so interested in it that he had his S-2 mimeograph and distribute it to the men. It was a wise move. The diarist was laboring under an extreme inferiority complex and doled out a number of extravagant compliments about the Marine outfit facing him. Every unit came in for its share of praise. If the writer spoke one day of the "extremely accurate American machine guns," the next day he would mention "the especially superior infantry mortars." The effect on the men was pronounced. In addition to boosting their collective ego, it provoked for the S-2 a veritable torrent of diaries, maps, and papers that had just suddenly been "found." That one diary was worth ten training directives on the importance of securing enemy documents.

The transformation of information into intelligence requires no super-mind gifted with a mystical intuition, but one with sufficient humility not to short-cut sound procedure and jump to immediate conclusions. The G-2 must first imprison every scrap of information in the journal lest it inevitably be lost in the shuffle. Once recorded in the journal and put on the situation map, the item is classified by subject heading in the worksheet so that it may more easily be "worked." (And also save the G-2 a great deal of trouble when he sits down to write his periodic report.) Each item has been mentally evaluated for credibility and accuracy.

The information is now in a semi-distilled state. When it is combined with the other items, when its significance in relation to the whole is determined, it has become intelligence. It is now ready for dissemination. It may be sent out immediately, or it may be included in the Two-section report. Whatever the means, it is given the widest possible distribution, downwards, upwards and laterally, and whenever possible, with sufficient "salesmanship" to win friends for the Two-section and keep the information streaming in. END

Guam Justified

MARINE MajGen Henry L. Larsen, former IsCom of Guam, has replied to critics of naval government on the island by citing in detail the rehabilitation and public works programs currently under way and by asserting that the average living conditions of the Guamanians are now better than ever before.

Gen Larsen, who relinquished his island command in February to become commanding general of the Department of the Pacific, held that the success of naval government on Guam is apparent in the health and prosperity of the people.

The island, which now equals Pearl Harbor in importance as a military establishment, was characterized recently in the press as "forgotten" in connection with the Government's program to rebuild war areas razed by American guns.

American rule on the island from 1898 until the Japanese occupation in 1941, Gen Larsen declared, transformed the native population from Spanish subjects to "intensely patriotic American nationals." The natives, he added, were put through the test of Japanese fire during the occupation and many gave up their lives to avoid committing acts prejudicial to American interests.

Gen Larsen referred to the Meritorious Claims Act and Land Transfer Act, both of which were signed by the President on November 15, 1945 as a significant initial step in the Government's program to make restitution for losses incurred by the natives as a result of enemy occupation, American occupation and base development. The first act provides for cash payments for prosperity losses and damages, while the latter authorizes the sale of federally-owned land to natives.

A third rehabilitation bill, which is now before Congress will make available funds to replace Government postoffices, hospitals, schools and utilities in five villages destroyed.

Most significant, perhaps, the general said, from the point of view of meeting immediate needs is the construction of 1,500 emergency housing units, and supplying the materials for the construction by the natives of an additional 1,500 dwellings.

Gen Larsen said that more than 7,500 persons out of the population of 22,000 now attend the public schools. There has been a steady reduction of the death rate and an increase in births.—N. Y. Times.

SCOUTING at Cape Gloucester

By George McMillan

Illustrated by Sgt Svend Anderson

THE Australian pilot who had been brought along for his knowledge of the waters did not like the assignment.

"I'll get you in," he said after they stood out to sea in the PT boats, "but about getting you out . . . I can't say."

The Marine amphibious scouts, trained months for just this operation, trained to sneak in under the noses of the Japs, looked at him. He must get them out.

It was September 24, 1943, three months before the Marine assault on Cape Gloucester, New Britain, and the scouts were going ashore to get information on which the landing force could lay a tactical plan. The assault would not come until December 26.

September, 1943. New Britain was a Jap staging area for their defense of New Guinea; they were moving troops down from Rabaul to Cape Gloucester and across the short hop to Finschaven. And from Gloucester airdrome the Japs were mounting air strikes on MacArthur's force in New Guinea. The pilot's fears were soon justified. The PTs passed a string of five Jap barges. Orders were not to fire. The crews cursed in frustration.

The scouts went down the side of the PTs, into their rubber boat, with the Jap barges coming on slowly. They crossed 200 yards in front of the leading barge, their paddles dipping deeply into the still waters of the narrow strait.

1stLt John D. Bradbeer, the First Marine Division's chief scout, leaped quietly out of the boat, the crunch of his feet on the coral, washed out by the sound of the surf. He, it is now officially recorded, was the first Allied soldier to set foot on New Britain.

In the darkness and torrential rain, the scouts grabbed the rope handles on the sides of the awkward craft and hurried with it across the beach into the bush.

Reconnaisance in a jungle at night being impossible, they waited, soaked and a little chilled, for dawn. As they sat, they looked out, watched the PTs move out of sight. They were the first on New Britain all right, and they might be the last.

The scouts had been training in teams, training with natives and with Aussies who knew the land and had run plantations on New Britain.

Not much comic-strip Commando stuff about them as they sat in the jungle on this September night—no blackened faces, no special shoes. Each man wore what he found most comfortable. Some wore camouflaged zoot suits. All wore baseball caps, except the Aussie who wore his dashing, wide-brimmed felt. Pockets were empty of identifying relics. They carried pistols and a little ammunition. The burden was food.

The mission was to last ten days, and was to be made along the southwestern coast. The rain gave them a good start. They cut inland and up toward commanding Mount Tangi to find a trail which they had been told encircled that peak. After two days of failure—actually there was no trail—they returned to the beach and set up a base camp. There were too many of them and they made too much noise for Bradbeer's exacting ears.

The party that left the third day moved through the jungle in this order: two natives to form the point, about 100 yards in front, then Lt Kirkwall Smith, Royal Australian Navy, Bradbeer, and one native in the rear to eradicate footprints, all signs of the white man. As they pushed along, word spread among the villages that they were there, and the natives met and talked with them.

They had been told the natives would be unfriendly; they were, rather, on the fence. "They knew the Japs were top dogs, but they sensed they might not always be."

The party had narrow misses. "No sooner would we leave a village than the Japs would appear," Bradbeer said. Once the native on the

Dangerous preliminary to the landing were the amphibious reconnaissance patrols.

As the PT boat moved away, they hid their rubber boat and slipped into the jungle.

point turned a corner in the trail. There, not 15 yards away, sat a Jap sentry, who had given away his position to the native by smoking a cigarette. The party skirted him and went on.

They turned back near the Gloucester airport because the natives with whom they had been talking and who had become friendly, warned them that there were Japs in the villages ahead.

They built fires just before dusk for their only hot meal. The natives gathered rotted but still standing small trees, stripped the outer wet part, and burned the inner. Thus, a fire with almost no smoke. Over it, in the gathering night, the party had tea and bouillon.

Bradbeer, Smith and the natives returned safely to the base camp, and on the tenth day the complete party reached the beach, found their rubber boats safe, set up security watches, and tried to communicate with the PT boats by radio. They got no reply.

Natives arrived to tell them that a Jap patrol had discovered their presence and was looking for the scouts. Bradbeer decided that they would leave New Britain, PTs or no PTs. If they were still unable to contact the PTs, the scouts could row in their rubber boats to Siassi, a small island in Dampier Strait, and wait there.

But, at dusk, they tried their radio once again, before setting out for Siassi. They got the PTs, and returned safely aboard them.

What had they found? They had made estimates of the coast defense guns. They had drawn maps of the beaches. They had learned the routes and times of Jap barge patrols. They had learned that the Jap troops in the area were badly disciplined and badly fed.

But MacArthur's Sixth Army needed more information. On November 20, a month and a half after the first patrol, they set forth in PT boats again. This time they went ashore in rubber boats at Semeru, near Dorf Point, somewhat north of their first landing point.

Bradbeer this time was to be stand-by officer, remaining on the PT. Lt R. B. Firm, USMCR, was in charge. With him he took Ensign A. E. Gipe, USNR, Marine Sgt Elmer Potts and Cpl A. M. Woyciesjes, and two natives.

The beach they were to scout had been chosen tentatively as a site for one of the landings in force, but it took Ensign Gipe, who was doing the hydrographic work, only a few minutes to tell that this one would be a bad choice. The beach was backed by sheer cliffs with only one narrow exit—a natural trap for assault troops.

And this piece of information saved lives.

D-day was close. One more patrol. One more to make sure that the situation was not changing, that the Japs were not bringing in more replacements to Cape Gloucester. Six days before D-day, on December 21, they went ashore again, in two parties, above and below Tuali Village, one and a half miles south of where a main

Bradbeer's party ran into a Jap sentry, but native guides waved the scouts a warning.

landing was to be made. Again they came in on PTs—this time there were three—and hit the beach in rubber boats.

The south beach patrol under Lt Bradbeer's command was made up as follows: Plat Sgt J. J. Zajac, and PFCs J. H. Henderson, E. E. Perkins, E. Quill, T. McLane, and H. Heidtmann. The north beach patrol was under the command of 1stLt J. P. Fournier, and was made up of Cpls W. T. Coggins, S. Tureen, and D. E. Wilson; PFCs T. Devaney, R. K. Hellman; and Pvt D. R. Wright.

They found the beach okay for an assault in force. It was practically undefended. They determined the all-important "five foot line," the depth at which landing boats must stop by dipping their paddles (just the right length) as they approached the reefs. The rise of the tide was three feet.

They then left, got to the PTs uneventfully. Soon, the detection apparatus of the boats picked up what seemed to be enemy landing barges. The skipper, Lt Paul Rennell, USN, decided to close with the barges.

There were barges, and more—an armed picket boat. Rennel found this out late, when he made a run past the barges, inshore of them, and fired on them from his starboard guns. Suddenly, he was being hit on his port side, from inshore. "It looked like a battleship at the time," Lt Bradbeer remembers Three of the crew of the PT were wounded in the ensuing engagement, and one of the motors was shot out. Rennell reluctantly turned away.

The amphibious scouts had gotten, in their pre-invasion missions, the kind of information for which there is no substitute in jungle warfare: on the ground, close-in observation. Here is the way Lt Bradbeer's citation for the Soldier's Medal evaluates the job: He got "valuable information contributing to the future success of the Cape Gloucester operation . . . with respect to enemy dispositions, movements, beaches, trails, nature of terrain and attitude of natives . . ." The citation also mentions his "resolute courage, vigorous initiative and shrewd judgment," and pointedly states that he withdrew "successfully and without casualties upon the completion of his mission."

But there was more work for the scouts. The assault on Cape Gloucester was made December 26, and after a month of bitter, but successful fighting which took the Gloucester airdrome, it was decided to assault Talasea, on the Willaumez Peninsula.

Another pre-invasion, shore to shore reconnaisance, was called for. On March 1 and 2, the scouts made two unsuccessful attempts to

land on the peninsula. The first time the Japs saw them they took the scouts for friends, and blinked signal lights for them to come in. The second landing was prevented by high winds and heavy seas. On March 3, Lt Bradbeer and Flight Lt Rodney Marsland, RAAF, who had operated a plantation at Talasea before the war, landed with two natives just north of Bangum Village. Lt Marsland sent out runners to find natives he had known. They came in, and pow-wows were held. "We found out almost everything we wanted to know," Bradbeer said. Marines then made a successful assault in force on Talasea.

Just one more patrol for the amphibious scouts, another shore to shore movement to Hoskins Airdrome, enemy held, a few miles above Talasea. The scouts were to discover what force the enemy had there, and whether it would be necessary to launch an offensive against it.

An unusually large patrol was sent out. They landed about six miles west of the airdrome at Baluma, and moved along a beach trail. LCMs followed them along the coast.

As they went along, the scouts picked up a suspicious native, forced him to come along for fear he would betray them. He walked on the point with the trusted natives the scouts had brought along. But he led the point into a Jap sentry.

Unaware of this, the scouts approached the bend in the trail around which stood the natives and the sentry. While the Jap questioned them, the friendly natives put their hands behind their backs to wave the scouts into the bush. The scouts moved off the trail into the bush and waited.

Then the loyal natives made a break for it. One turned into the bush while the other ran straight down the trail in front of the Jap. "He ran a few steps," a scout said, "fell on his knees, got up, ran a few steps more, fell on his knees again, and then got up and ran away into the bush. These tactics outwitted the Jap. He fired three shots but never wounded the native."

The whole party moved up to the point, and the Japs opened from the airdrome with mortars. The scouts sent the native whom the Jap had missed down to the beach, back the six miles, to bring up the LCMs. Finally a rendezvous was made and the party escaped.

It was later discovered that the Japs withdrew from the airdrome immediately after the patrol, taking the scouts for a larger force than they were.

After the Cape Gloucester campaign, Lt Bradbeer and many of his scouts returned to the United States to teach in intelligence schools. Others in the group remained with the First Division. But they were never used again in pre-invasion reconnaissance. END

Postwar Reserve

VETERANS and qualified civilian volunteers will form the Marine Corps Reserve, according to present plans recently announced by Headquarters. The Corps has already selected tentative training sites in 28 principal cities, including Boston, New York, Philadelphia, Chicago, New Orleans, Dallas, and San Francsco. In addition, 21 Naval Air Stations have been designated as locations for Marine Corps Organized Reserve Aviation units.

Enlistees will be appointed to the rank held at the time of separation from the service. Service in the Reserve will count for pay purposes on periods of active duty. Keynote of the Reserve program will be "military education," consisting of weekly classes and drills, summer encampments, service schools, and correspondence courses, with emphasis on technical subjects and practical application of special skills.

Selected Reserves will be sent to a summer Platoon Leaders' Class to be conducted by the Marine Corps Schools. Three summer training periods will lead to a commission under present plans.

Air Reserve activities will be designed to maintain proficiency in navigation skills. Pilots will be authorized to fly approximately 100 hours per year in late model Corsair fighter planes. Proposed strength of the reserve aviation arm is 1,447 officers and 4,575 enlisted men.

The Marine Corps Reserve will consist of six classes:

Fleet Reserve—Officers who have served four years in the regular Marine Corps, and enlisted personnel with sixteen years' regular service, who are available for active duty in a national emergency.

Organized Reserve—Officers and men enlisted in companies and battalions in 28 cities. The proposed strength of this branch is 3,000 officers and 25,000 enlisted men.

Volunteer Reserve—Qualified officers and trained and untrained enlisted reservists not otherwise assigned. Training for this class will be through summer encampments and correspondence courses.

Limited Service Reserves — Men enlisted or reenlisted in the Reserve for limited service for potential replacement of combat troops.

Volunteer Specialists—Officers and enlisted men possessing special qualifications which may be utilized in event of national emergency.

Women's Reserve — Women enlisted for training to replace combat troops in the United States and possessions in time of war.

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EYES IN THE NIGHT

Radar, air warning squadrons, and night fighters formed an almost impenetrable air defense net.

By Sgt Bill Murray

A SLEEK Jap bomber slipped through the Pacific night, headed for an advanced Marine base. As the target neared, the bombardier grinned toothily in the darkness. Suddenly machine-gun bullets ripped through the plane. For a split second it hung in the air and then spiraled downwards in flames. It exploded as it hit the water.

High above, a Marine night fighter headed for home, his job finished. Although the Jap couldn't see him, the Leatherneck pilot had been trailing the bomber for the past five minutes, not seeing the enemy plane but knowing exactly where it was every second.

The Jap had been shadowed from the very moment he entered the defense area. A member of a Marine air warning squadron had been trailing the bomber from hundreds of miles away. What's more, he had guided the night fighter to a point where he could polish off the Jap.

This Jap bomber met the same fate as hundreds of others. Some, like this one, were blasted by seemingly invisible fighter planes. Others disintegrated in blistering antiaircraft bursts which struck without warning.

Such ghost-like destruction of the enemy was the work of the Marine air warning squadron, whose units stormed beachheads along with the FMF and were definitely credited with aiding many Hirohito men in their fanatical search for long-dead ancestors.

Designed to operate in enemy territory after a beachhead was established, Marine air warning squadrons furnished long-range warning of approaching hostile planes and from the ground controlled fighter planes sent up to repel the enemy. The first Marine air warning squadron went into action February 1944, at Eniwetok. From then on, they moved, step by step, in the westward march to Tokyo.

All Marine air warning squadrons were organized and trained at the Marine Corps Air Station, Cherry Point, N. C., by the 1st Marine Air Warning Group (AWG-1).

The air warning squadron's chief weapon is radar—and there's no real secret about it. It is merely the location of material objects in space by reflected radio waves. Adaptations have been used for years to detect icebergs and to determine ocean depths.

Sweeping the skies with radio waves, the air warning squadron (AWS) learns the presence of all planes, friendly or enemy. If a hostile plane enters the defense area, AWS contacts fighter squadrons or the antiaircraft guns of a Marine defense battalion to deal with the foe.

Probably the greatest use of radar by the Marine Corps is in the control of fighter pilots from the ground, a relatively new aspect of flying. It means that the pilot is under complete control from the time he slides into the cockpit until he climbs out of it. A ground controller gives the flyer altitude, speed and heading for himself and the same data about the enemy plane, plus any evasive tactics. Then the controller directs the pilot to a rendezvous with the hostile plane. When the flyer has disposed of his opponent, the controller guides him back to his base.

Admittedly when fighter control was first tried, flyers were hesitant to trust the judgment of the controller on the ground. Heretofore the aviator had been relatively free to make interceptions of hostile planes in an independent manner. But expert direction by controllers and the subsequent sharp rise in enemy losses soon convinced our pilots of the value of the innovation.

Day fighters were directed until visual contact was made with the hostile flight. Then the flight was left in the hands of the squadron leader. The controller's skill was shown in the approach he planned for his fighters. He usually brought them in through the blinding sun or from some unexpected quarter, giving them every possible advantage.

Night fighters, because of poor visibility, were controlled up until the last possible minute. Although the night fighter could not see the hostile plane until he closed for the kill, the controller was able to follow the paths of the night fighter and enemy plane at all times. Little by little, he would draw the night fighter closer to the Jap,

◀ **Predecessors to this newest night fighter ruled Pacific night skies.**

Editor's note: This article by no means professes to tell the complete story of air warning or the use of radar in the Pacific. It merely tells of the organization of the Marine system and its operation up until the Marianas campaign. This story was written early in 1944 but has just been released by the Navy censor.

Night fighters may fly formation in daytime, but at night they become lone wolves.

always keeping the fighter hidden from the enemy until time for the attack.

So expert were Marine controllers at remote direction that our fighter planes were right on the enemy's tail before the Jap knew it. Then it was too late for the Shambo!

"Most of those guys didn't know what hit them," said one of the controllers back from the Pacific. "Our planes came in from out of nowhere with such a rush that the Jap didn't have a chance. Only one Jap that I know of was able to even get a shot at a night fighter and even then, it was hopeless for the Jap from the start."

When Pearl Harbor was attacked, the Marine Corps had little control equipment and fewer operators. But when Jap planes swarmed down on Wake Island on 10 December 1941, there was a marine and equipment waiting for them.

Some may have wondered why Col W. L. J. Bayler was the only marine to leave Wake. He was "ordered off" because he was one of the few men in the Corps who understood radar.

Col Bayler got his first chance to strike back at the Battle of Midway when ground-controlled planes helped deal the Jap navy a staggering blow. Later at Guadalcanal, his control of communications helped start the Japs reeling backwards and won him the Legion of Merit.

To Col Edward C. Dyer probably more than to any other man, the Marine Corps owes the adoption of radar as a weapon which has made its victories possible. Col Dyer, known to most AWS members as the "grand-daddy of Marine radar," was one of the first to suggest a separate air warning and fighter control unit instead of small outfits assigned to aircraft groups.

Even before the blitz of London, Col Dyer was championing the air warning and fighter control system. A tour of England to study the RAF air defense system strengthened his belief and caused him to redouble his efforts. These finally resulted in the dispatch to England of a few Marine communications officers to study the RAF system.

By winter of 1941-42, Col Dyer had managed to get radar personnel assigned to Marine aircraft groups. Shortly thereafter, he succeeded in having ground control of fighter planes included in the T/O for Marine night fighter squadrons. These changes were based on adoption of the RAF system with modifications for the Marines' use in island-to-island warfare.

At that time, unfortunately, equipment and trained personnel were limited. Equipment production was slow and training facilities were almost non-existent. Even limited personnel and

equipment proved their worth, however, for on 10 March 1942, three months after the Japs attacked Wake, a Japanese flying boat was shot down near Midway Island by Maj J. L. Neefus and three other Marine fighter pilots. The kill was made about 40 miles from Midway where BrigGen W. J. Wallace (then a lieutenant colonel) directed the Marine fighters by remote control, thus probably becoming the first Marine shore-based controller to make a successful interception.

But it was the success of a small band of enlisted men on Guadalcanal that spurred the organization of independent Marine air warning squadrons by showing the effectiveness of their equipment in combat.

WHEN the Marines opened the Guadalcanal offensive, there were few trained radar operators. Under the urging of Col Dyer, a school for enlisted personnel had been established at Quantico. Its first class had graduated just as the Guadalcanal drive was being planned. Ten men from this class were assigned to provide early air warning during the early Solomon's campaign.

These ten men arrived at Guadalcanal on 28 August, 1942, while the Marines were still fighting to retain newly-captured Henderson Field. Possession of the airfield became vital when a naval setback at Savo Island stripped the FMF of regular supply lines and all materiel had to come through by air.

Directing the unit was SSgt D. H. MacDonnell of Lawrence, Mass., who won the Silver Star and a lieutenancy for his leadership. His crew was made up of PFC W. S. Taylor, and eight privates, H. D. Nichols, Robert W. Schultz, Julius W. Jones, W. M. Yurillo, C. L. Dill, G. F. Dolan, H. M. Wooley and Franklin T. Rainier.

They set up their equipment on a thin stretch of land between the bomber and fighter airstrips—the hottest point on the island. Bombs and shells burst around them continually because the Japs sought constantly to knock out the field. One night a heavy naval barrage obliterated everything else on the field. At times, the battleline surged backwards toward them and they had to grab rifles and take places on the firing lines.

For 24 hours a day, MacDonnell and his men swept the skylanes, hunting Jap planes. They were supposed to duck into foxholes when bombing raids were on. But many times, a second or third raid would be detected even while the first was passing overhead. Then they stuck to their posts, trailing the new raid while bombs fell nearby, jarring their equipment and shaking them from head to toe.

Washing Machine Charlie, the Jap pilot who bombed Guadalcanal almost every night, was more familiar to MacDonnell's men than to any other Marines on the island. He always approached from the same direction and his track was a familiar one to them. The boys could tell it was Charlie coming the minute his track appeared on their equipment. Even now, they all remember his favorite azimuth.

But bombing wasn't their only worry. One Lung Louie was worse than Washing Machine Charlie. Every evening around chow time, he would let loose with a gun he had hidden back in a cave. He would lob shells over, trying desperately to hit the fighter strip. Since they were located between Louie and the fighter strip, the shells would plough up the ground around them whenever he figured too short. Miraculously, they escaped Louie's shells as well as Charlie's bombs.

MacDonnell's men stayed on Guadalcanal probably longer than any other outfit because operators and technicians were scarce. They remained from 28 August 1942, until 19 April 1943, except for a few days at Espiritu Santo in the New Hebrides around New Year's Day. It was during this short rest that MacDonnell was given the Silver Star. He and his men were given citations commending them for remaining at their exposed and hazardous post and forwarding information which helped defeat the Jap's counterattacks.

IT was LtCol E. C. Best, who set up the fighter control unit in the Solomons. LtCol Best was a communications engineer who had gone to England early in 1941 as a liaison officer to study the RAF air defense system.

He rigged up a fighter control system on Guadalcanal upon the request of MajGen Roy S. Geiger, who was in charge of Marine aviation on the island. There was no equipment available so LtCol Best flew to New Zealand where he collected some assorted British equipment and sent it to Guadalcanal.

Although the equipment arrived in three shipments, all landing on three separate beaches, it took the colonel only 21 days to get the outfit assembled, satisfactory foundations built, a radio station in operation and communication lines established. He repeated this work on Munda and Rendova.

After Guadalcanal, air warning and fighter control were connected with individual aircraft groups with small attached units carrying out these duties. The first group of officer controllers arrived overseas with VMF(N)-531, the first night fighter squadron, which fought over Guadalcanal, Munda, Vella LaVella, Bougainville and Green Island.

Marine controllers moved ahead with the FMF as they jumped from island to island but it soon became apparent that the inclusion of air warning and fighter control in each aircraft organization was too rigid since it was impractical to

(*Continued on page* 44)

Postscript

By Joseph Auslan

Illustrated by Sgt Franklin

FEBRUARY returns, and those five
Tremendous days return,
When a little island died—
But not the lad I mourn:
So eager, so alive,
So full of pride! . . .
The strikes, the picket lines
Are back—the old familiar signs
Of peace . . . Forget
The agony of Iwo, and the losses;
But never the opening night at the "Met,"
That drips with diamonds yet . . .
They say the shoppers last week set
New records in all the cities . . .
I read where forty-seven sub-committees
Have questioned the big bosses
For miles and miles and miles
Of conferences and files
At so much per . . .
But on a hundred windswept lone Pacific isles
The terraces of crude white crosses
Do not stir . . .

Four thousand dead men carry a flag,
Four thousand dead men hoist it on high,
Four thousand dead men crawl up a crag
To fling a banner into the sky.
Behind a handful of Leathernecks inching
Up Suribachi, clear to hell's cone,
Follow four thousand, cold-eyed and unflinching,
To make a venomous island their own.

Our Leathernecks, wave on wave,
The bravest of the brave,
Inch in and up from the landing beach,
Slog through the black soft sand to breach
A toehold on the treacherous plateau;
Enemy shells and six-inch mortars smash
Bodies and boats to a sickening mash;
A battered tank keels over, careens,
Kicking in fire, dazed with the mortal blow,
Churning the slippery sulphur ash;
And still those floating ash cans crash,
Hurling sand, water, human flesh
A hundred feet into the flaming sky:
So the Marines
On Iwo fight, dig foxholes, die;
(The gallant captains, privates, ship-to-shore men,
The quiet medical corpsmen)
Swirl past the death-spitting pillboxes, spill
Grenades and flame
Into the same,
Are killed and kill,
And wriggle forward still,
Writhing and slithering on sheer guts uphill . . .

ipt to Iwo

oph Auslander

Sgt Franklin L. Jones

What do the talkers who talk all night know?
Their cigars go out and glow, go out and glow;
Match after match spurts bluegreen, shrivels, chars;
Their hands make motions, disturbing the smoke of the cigars;
The ice-cubes clink as they shift in the glasses, clink
As they are shaken,
While the talkers stop talking to drink,
Then go on talking and talking and talking . . .
What do they know of the snipers stalking,
The star shell, the bullet, the stink,
The hell-defended furious ridge taken, lost, retaken,
The boys no nudge in the slack
Of the pants, no ribald crack,
No bugles, no bars, no medals will awaken,

It is quite clear
The talkers know nothing of these far-away matters:
Of the cold foam-fingered face,
The intense blue stare
Of sea-washed eyes,
The slumberers rocked to tidal lullabies,
The silvery dabble of hands and hair,
The strange inert grace
Of death's promiscuous embrace;
Abandoned battle gear,
The broken harness of combat, rags and tatters
From huge amphibious assault
Bleaching in sun and salt;
The shambles and detritus of attack
Rolling and rotting in a vicious surf,
The landing craft, the tank, the half-track
Sprawled like a beetle on its back,
Or on its side
Still twitching in the treacherous surf and tide . . .

Night:
Hairtrigger tense,
The skin on your scalp freezing tight,
The choked-up suspense
You can almost hear, see, touch, smell;
You sweat it out—
Christ, if you could only let it out,
Let it loose in a yell. . . .
Then, all of a sudden, without warning,
A phosphorus shell
Mushrooms in the air,
Hovering there
Like the star
Of morning:
It spreads, it deepens like a stain,
Fingering the lunar spectral terrain,
A huge nervous hand of light
Feeling its way
In livid Unnatural day
Over the bright
Mask of the night—
And there they are!
The little brown monkeys are there!
All around you, everywhere! . . .

(Next page, please)

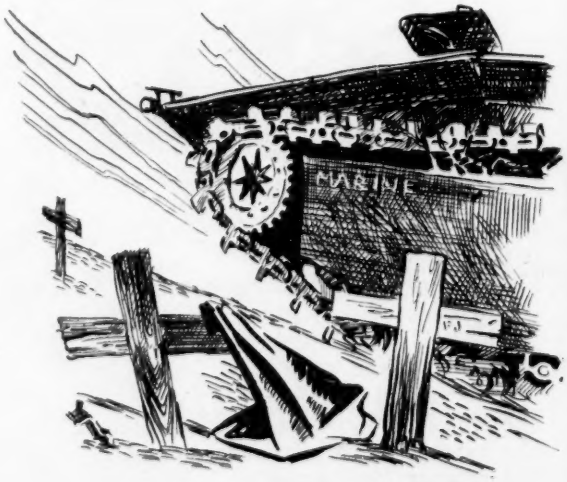
And now it comes: those squint-eyed fanatics
Raise hell with long crazy bursts from their automatics
To take your mind
Off the rats crawling in from behind,
Through the rock fissures creeping and crawling
Under cover of the clatter and caterwauling –
You're playing a deadly hide-and-seek
In and out of this junk yard of hell,
With all the tricks and dodges of war,
Plus a few you never saw before—
(Not to mention you can wash Jap smell
In surf and sand for a week,
And your hands still reek.)

This quicksand-surfaced hell-on-earth
Was worth
The twenty thousand Jap dead shattered
In dogged and relentless duel, scattered
Without a trace
All over the place,
Or in belched flame cremated,
Sealed up, incinerated
In their impromptu graves,
Bulldozered in their catacombs and caves,
Looking like twisted tapers
Of charred newspapers.

Yet every vicious inch of this volcanic mound
Of blood-soaked rubble and filthy slag
And slippery lava ash
Is hallowed ground,
Since men looked up with beating hearts to see
A certain sacred flag
Flutter and flash
Suddenly
From Suribachi's mountain masthead flying!
This bleak and treeless bed,
This isle of our heroic dead,
Wherever Leathernecks had fought and bled
And violently died,
And prayed, and watched the dead they prayed beside—
This ghastly citadel is henceforth and forever sanctified . . .

Listen, you talkers
Who talk so loud and big, you hawkers
Of poisonous fear and hate, you squawkers
So easy with your praise
Of alien works and ways,
All you deluded starry-eyed sleepwalkers
(Haunted by nylon's pre-atomic phase)
Can you discern the blaze
Still billowing over Iwo? Have you seen
Marine after marine after marine
Dragging his guts up Suribachi's promontory
(This isn't half the story)
To plant Old Glory
Plumb in the crazy middle of hell's crater? . . .

Maybe you will remember these things—later.



JOMINI

and Amphibious Thought

By LtCol J. D. Hittle

BECAUSE of the impetus imparted to amphibious warfare by the recent conflict, there is a widespread, although erroneous, impression that the doctrine on which landing operations are based is of recent origin. Many discussions relating to landing operations have been written by various individuals during the course of the history of warfare. Some of the articles have evidenced a fairly general understanding of amphibious problems, while others have been sketchy and unsound. Only in a few instances have any military or naval writers prior to the middle of the 19th century produced anything that could be considered sound amphibious doctrine as we understand it today.

Over 100 years ago Gen Antoine Henry Jomini wrote his famous "Summary of the Art of War," destined to be one of the most important military books of history. Not only was it of historical significance in the development of terrestrial battle thought, but today it is of more than passing concern to those interested in the development of amphibious doctrine. It was unusual for a book of its kind and time because the author devoted considerable space to the matter of landing operations. What he said about such operations is amazingly close to what we today take to be basic amphibious doctrone.

When the "Summary" first appeared in book form in 1838, its author was already a famous military writer with a long and important list of publications carrying his name. For almost a quarter of a century, his books of military history and theory had played a leading part in forming military thought of the era.

Jomini, more than any other writer, assembled analyzed, standardized, and codified the military method and thought inherent in the Napoleonic concept of war. The "Summary" was his most thoughtful writing concerning battle doctrine as it emerged from the era of war dominated by Napoleon. The book was quickly recognized as an epic contribution to military thought and was translated into all the important languages. There is firm reason to believe that much of the basic doctrine of our Army's "Field Service Regulations" finds its written genesis in "The Summary of the Art of War."

Based upon Napoleonic battle methods, the book soon attained the status of an international text of war. It was even more important from our own national viewpoint as it was the basic military text studied by both the Confederate and Union generals in the Civil War. In his excellent biography, "Robert E. Lee," Dr. Douglas Freeman lists the books in Lee's personal library in the years before the incident at Fort Sumter. Undoubtedly typical of many military libraries of that time, Lee's contained a copy of Jomini's book. With good reason it has been said that many a Civil War general charged the enemy with a sword in one hand and a copy of "Summary of the Art of War" in the other.

Gen Jomini, author of the "Summary," was an unusual person in many ways, and his career was as uncommon as his personality. Born in Switzerland in 1779, he moved to France at an early age, and by the time he was 17 he had entered the French army. Apparently a bit skeptical about there being a marshal's baton in

An almost forgotten general on Napoleon's staff correctly foretold basic landing technique.

every private's knapsack, he began his career in a minor staff supply assignment. Constant promotion rewarded his brilliant performance of duty. He was a full colonel and a member of Napoleon's headquarters staff when he was 27. Napoleon was so certain of Jomini's great ability that he appointed him chief of staff to the dashing Marshal Ney.

As Ney's chief of staff, Jomini participated in the great battles with which Napoleon introduced the world to the modern ways of war. While holding that position, Jomini was a brigadier general. During the battle of Bautzen (1813), Napoleon's orders to Ney were delayed and Jomini again proved himself to be a keen student of Napoleonic method by advising Ney to take the course of action that accurately anticipated Napoleon's intentions. Ney sought to reward his chief of staff by recommending him for promotion to major general. The promotion was blocked by Marshal Berthier, Chief of the Imperial Staff, and a bitter personal enemy of Jomini. Instead of passing the recommendation on to Napoleon, Berthier charged Jomini with improper performance of duty for not rendering certain called for reports.

SUCH intrigue was too much for Jomini, who, although loyal to Napoleon, could not sacrifice everything for an ideal. Taking advantage of an old offer of a commission from the Russian Czar, Jomini rode off to Russia where he joined the Czar's army as a full general. Entering the service of the Czar, he changed his uniform but not his thinking. For the remainder of his life—he lived to be 90—he wrote almost constantly, and almost always his subject was the Napoleonic manner of war. In his later years, he was looked upon much as the final authority on military matters, and he was often consulted by various governments regarding possible military activities.

Clausewitz's classic "On War" was first printed in 1832, but it was destined for many years to be overshadowed by Jomini's "Summary." Today Jomini's "Summary of the Art of War" is not available except in old editions, while "On War" has gone through a succession of both condensed and complete printings. Unquestionably, the military world has gained greatly from the military and intellectual deification of Clausewitz, but it has deprived itself of more than a little knowledge by permitting the writings of Jomini to fall into discard.

The false obsolescence to which "The Summary of the Art of War" has been relegated is particularly regrettable from the standpoint of those interested in the development of amphibious doctrine. In all of the almost endless pages of "On War," it is possible to find but a few incidental references to the problems of landing operations. This is probably due to the fact that Clausewitz developed his military theory in an environment of inner-continental wars. As a consequence, his military vision was quite landlocked.

The Prussian's most pointed reference to landings results from his thinking relative to the possibility of effecting a diversion against France by putting troops ashore on the French coast. But even in this instance, Clausewitz came to a conclusion that indicated that either he had not studied historical examples of landings or he didn't visualize the potentialities of such operations. His observation in this case, " . . . a landing with a large force can never be justifiable unless we can count on the assistance of a province against its government," obviously was based on a belief that a landing in force could not succeed without the help of an uprising of the population in the invaded area. This contention has been repudiated many times in history, both before and after Clausewitz wrote his classic.

Like Clausewitz, Jomini spent his military career fighting the land battles of continental Europe. But in fighting those battles he was at least occasionally exposed to the influence of the sea. He was part of the valiant but vanquished French army that struggled in vain against Wellington who was backed by the power of the British fleet during the bloody years of the Peninsular War. Jomini was not slow in understanding the strategic advantages that came to Wellington in being able to have a fleet capable of putting his forces ashore where he could engage the French at the latter's disadvantage.

WE do not know if Jomini had an active role in planning the unattempted invasion of England, but it is definitely known that he was a staff officer in the French army during the years when the invasion was being planned and the forces and materiel assembled. Regardless of whether he was directly associated with the invasion project, the fact remains that he was well informed of the details of the plans.

Jomini usually did a great deal of sound military thinking on any military subject that came to his attention. Landing operations were no exception. In contrast to Clausewitz, who scarcely referred to landing operations either tactically or strategically and whose erroneous conclusion regarding the practicability of landing large forces on a hostile shore was at variance with previous as well as subsequent landing history, Jomini obviously devoted much time to research regarding landings.

Jomini considered landing problems in two specific parts of his "Summary": Article 40, titled "Descents," and in a special supplement, "Sketch of the Principal Maritime Expeditions,"

Von CLAUSEWITZ

. . . was Jomini the Prussian's master?

appearing at the end of the book proper. Article 40 contains his discussion of the basic considerations and doctrine for landing operations. The supplement is in the nature of a survey of the history of landings.

When he wrote about landings, Jomini must have realized that he was dealing with a little known subject for he began his historical sketch with the observation that he had included that supplement "in support of the maxims upon descents." Jomini, who considered "history as the true school of war" obviously had delved into the history of landing operations.

In his supplement to the "Summary," he chronologically lists about 90 specific sea invasions beginning with the massive operations of the Persians against the Greeks, down through Roman, Carthaginian, Nordic, Moslem, and Byzantine landings, and concluding with the Spanish, French, and British landings of the 18th and early 19th century.

The survey is usually brief regarding each specific operation. Nevertheless, it is apparent that in accumulating the data on which the survey was based he had uncovered many interesting technical amphibious details. Frequent reference is made to the number and type of ships involved in different operations, the composition and strength of the military forces embarked, and the nature of the armament.

Anyone who glances through the amphibious supplement to Jomini's "Summary" will soon realize how completely erroneous is the present day impression that major amphibious operations are developments of the recent war. History has numerous examples of sea-borne invasion forces totaling the hundreds of thousands of men embarked in hundreds of vessels.

It would appear that Jomini was able, as a result of his historical research, to perceive that there had been a definite—although at times unconnected—development of landing technique through the course of military and naval history. The helter-skelter affairs of the Nordic invasions, the Crusades, and the early French and British expeditions had little in common with the carefully planned, rehearsed, and accurately executed Aboukir Bay landing of the British amphibious generals, Abercrombie and Moore, at the opening of the 19th century. This operation, incidentally, demonstrated many of the basic features later to constitute much of World War II amphibious technique.

Acquainted with such a mass of amphibious history, Jomini was as well-qualified to discuss amphibious doctrine as any other contemporary military writer.

For a person whose military career was restricted to terrestrial combat, he displayed an understanding of amphibious theory that is quite remarkable. In the first sentence of his discussion, he bore straight through to the heart of amphibious operations. He sensed that the transition from land to naval warfare is the most delicate of all armed endeavors, stating that such operations are "among the most difficult when effected in the presence of a well prepared enemy." It is notable that although he readily appreciated the difficulties of landing against a prepared enemy, he did not share Clausewitz's unjustified pessimism that a landing can be successful only when supported by the revolt of the inhabitants of the area being invaded.

Jomini's appreciation of the practical aspects of amphibious operations is somewhat amazing. His discussion of landings makes numerous references to the hazards of wind and sea to which landing forces are exposed. His practical observation that troops embarked in small boats, tossed by heavy seas, will suffer from sea sickness and land with reduced fighting efficiency anticipated one of the most important considerations of modern amphibious planning. In short, Jomini realized a very basic fact which in some cases is still not fully appreciated—that the sea would ever be the "non-constant" factor in amphibious planning and execution.

In this discourse on landings is found one of the most revealing clues to Jomini's scientific

and very objective attitude toward war. The social and political world of his time was still considering Napoleon's unattempted invasion of England in terms of permitting the survival of Anglo-Saxon culture. Jomini, the student of war, felt that it was regrettable that the Emperor hadn't at least made the attempt, if for no other reason than to establish whether or not such a large and carefully planned landing could be successfully executed.

Jomini noted that it was extremely difficult to prescribe any set of rules for the conduct of the landings but he did offer a few principles for the guidance of a commander charged with directing such an operation. These basic tenets of Jomini's amphibious doctrine are as follows: 1. Deceive the enemy as to the point of debarkation; 2. Choose an anchorage where the landing can be expeditiously executed; 3. Vigorously push the attack; 4. Early landing of artillery; and 5. Prompt seizure of ground to permit the development of the attack.

Jomini usually looked at a problem from the standpoint of the defense as well as the offense. Again, the subject of landings was no exception. In examining the problems involved in planning a defense against a landing, he realized that a continuous coast defense system was neither practicable nor desirable.

For defense against a landing, he advised protection of probable objectives of the hostile landing force, observation of the coast to determine where the landing is being made, effective means of transmitting the information when the enemy commences landing preparations, and the concentration of defense forces to engage and defeat the landing force before the enemy is able to establish his forces ashore. Thus Jomini advocated essentially what we today term "a strong beach defense"—one which is initially passive in character but is also predicated upon subsequent aggressive action in the form of strong counter-attacks by local reserves.

Knowledge of amphibious operations and technique has experienced a great expansion in recent years. While much has been learned about how to effect a landing on a hostile shore or how to defend a shore from a hostile landing, there is little in our basic doctrine that is really new to the world of military and naval thought. A careful reading of Jomini's writing on landings will lead the reader to but one conclusion—that his principles concerning landing operations are as valid today as they were when he penned his "Summary of the Art of War" more than a century ago. In fact, his principles could well be used as part of a summation of a lecture on the general aspects of landings.

Intelligent opinion can never contend that Jomini's writings could displace the great works of the Prussian; neither can it be thoughtfully held that the Clausewitzian classics render valueless the historically important writings of Jomini. When Clausewitz's and Jomini's writings on landing operation are compared, the comparison is not favorable to the Prussian. This is but one of the many reasons why it is regrettable that contemporary military literature has yet to rediscover Jomini and his "Summary of the Art of War." END

Unrest in the Philippines

ALTHOUGH organized Jap troops have been rounded up in the Philippines, the islands have not yet settled down to a complete state of peace. Armed secret societies have not surrendered their arms as required by proclamation of President Truman on 26 October, 1945. On the contrary, they have raided small towns which were unguarded and have searched them for arms and ammunition which they have carried off.

The most powerful of these secret societies is the *Hukbong Bayan sa Laban sa Hapon*, commonly known as the Huks. The Huks are estimated as having over 40,000 armed members in the provinces of Batangas (south of Manila) and Batacan, Pampanga, Tarlac, and Nueva Ecija, which are adjacent to one another and north from Manila. American patrols reconnoitering off main roads toward the hills and jungles have been fired upon, but in general the Huks have avoided conflict with U. S. Troops.

Usual Filipino tactics are to conceal weapons and munitions in the jungle, woods and mountains, and camouflage the members of combatant organizations in civilian clothes. Thus, they avoid combat, unless surprised. It would be possible for the native population to identify members of the Huks to the military police and other law enforcement orders, but they are terrorized into silence by the Huks, who threaten them with death in case they do so. This condition is normal in Malay countries, and can only be overcome gradually by preventing further capture of weapons and ammunition by Huks and similar organizations.

General opinion is that the Huks will not undertake any major operations until the U. S. Army withdraws and the Philippines are given their independence. These are due to take place on 4 July. What will happen then is anybody's guess.

Field Artillery Journal, March, '46

In Brief . . .

The Navy almost built a gigantic aircraft carrier of ice for use against Japan. This "ship," 2,000 feet long, 300 feet wide, 200 feet deep, would have had a 2,000,000 ton displacement. The project, "Habbakuk," would have cost $70,000,000. "Habbakuk" was to have been propelled by many independent electric engines, giving the mass an extremely slow speed. It was given such serious consideration that a model, 6'x 30'x 20', was constructed in the winter of 1943 and kept frozen until the summer. The mass, composed of substitute ice—"pykrete," a mixture of wood pulp and ice—was a tough, plastic solid, could be cut and worked like wood. Ordinary torpedoes, exploding against it underwater, would have made only three-foot deep craters.

The first helicopter commercial license ever granted has been issued by the Civil Aeronautics Administration on a new "Model 47," two-place helicopter, a product of the Bell Aircraft Corporation. The airworthiness certificate was granted after exhaustive tests at Buffalo, New York, during which the machine attained speeds of more than 100 miles an hour and established an operating speed of 80 miles per hour with a range of 250 miles. The granting of the commercial license to the helicopter means that it may now carry passengers for hire and may also fly over populated areas, hitherto forbidden.

Biological weapons, perhaps more lethal than artillery or bombs, were developed by pint-sized Naval Research Unit No. 1. Begun in April, 1943, to prepare defenses against possible enemy launchings of germ wars, this unit perfected deadly, microbe-carrying "mists." Working secretly at the University of California, 19 medical officers and 45 enlisted men also devised decontamination operations, anti-bacterial masks and vaccines, antibiotics and drugs, now hoped to be as useful in checking natural epidemics as they would have been against plagues deliberately engendered by the enemy.

Ten U. S. military war-time leaders received promise, on March 15, of a permanent pay rise which would amount to about $15,000 yearly for life for most of them. A Senate-House conference committee agreed to grant permanent rank and full pay for retirement to: Generals of the Army George C. Marshall, Douglas MacArthur, Dwight D. Eisenhower and Henry H. Arnold; Admirals of the Fleet William D. Leahy, Ernest J. King, Chester W. Nimitz and William F. Halsey. Marine Corps Commandant General Alexander A. Vandegrift and Coast Guard Commandant Admiral Russell R. Waesche were also included in the agreement. The Army and Navy men will have permanent five-star rank, the others four-star rank.

Weekly demobilization figures supplied by Marine Corps Headquarters lists a total of 269,956 officers, enlisted men and WRs leaving service between 17 August 1945 and 8 March 1946. This period, covering 202 days of demobilization, shows a slight decline of 18 persons per day from the previous daily average of 1,354 to 1,336 reported 22 February. However, with the Corps releasing official plans for sending Marines home, it is expected that a sharp rise in daily ration will result. Present plans call for a 1 May drop from 40 to 38 points for men, and 13 to eight for women; 1 June, to 28 for men, four for women; 1 July, 25 for men, none for women.

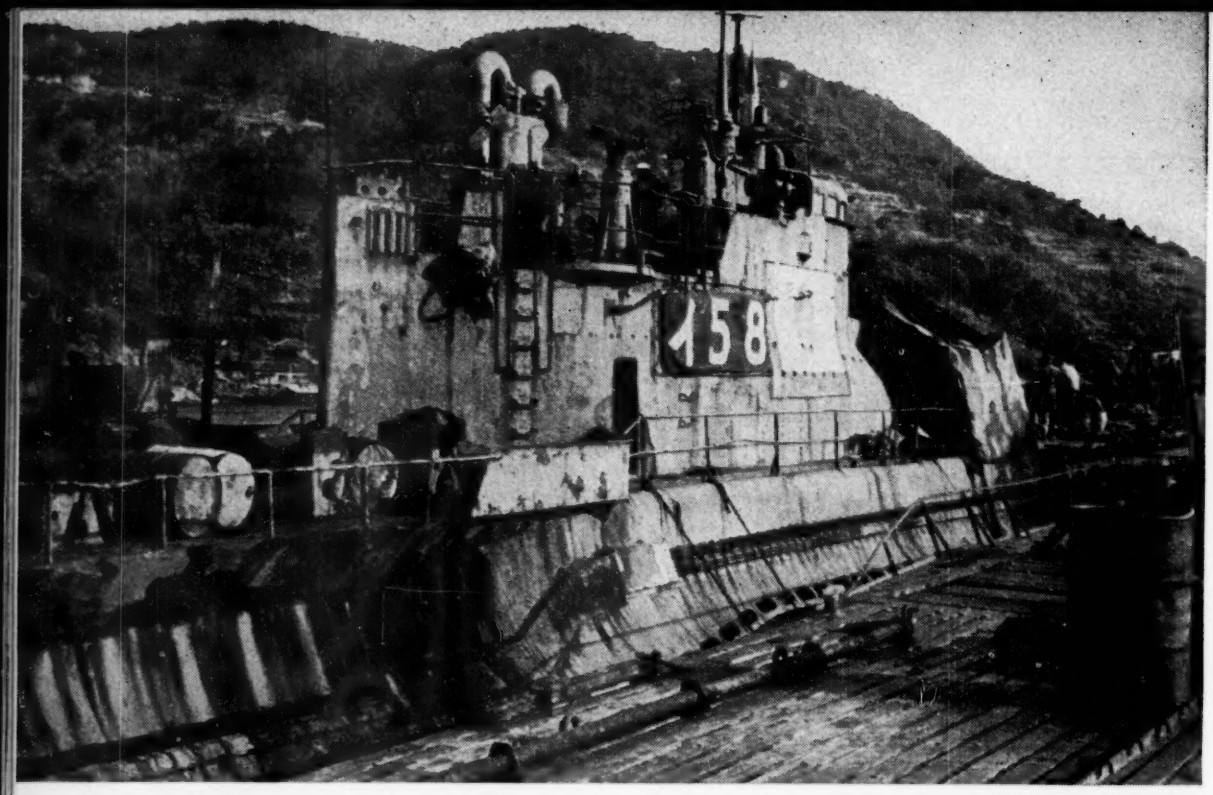
Allied financial experts have drawn up a tax plan for Germany designed to impress on the German people that they will be compelled to share in paying for the war. Under the proposals, the drastic taxation rates, higher than borne by the British during the war's peak, will enable Germany to balance her budget. The new tax laws, fixed by deputies of four occupying powers, will include: Income tax, 57% higher than paid under Hitler, from 10% on low incomes to 90% on high; property tax increase of 400%; 300% inheritance tax increase; turnover tax on total sales increase—50%; excise tax, such as on alcoholic beverages increased as much as 1-to-2000%.

The famed Stilwell road in Burma will be abandoned because it is commercially unusable.

This announcement was made in Washington by the War Liquidation Commissioner, who also said 11 military airfields in Burma will be abandoned.

More than 12,000 U. S. soldiers and 11,000 local laborers would be needed to maintain the road, but none of the governments wish to purchase the road.

The road, formerly called Ledo Road, cost the United States more than $137,000,000, and the airfields cost more than $150,000,000.



Jap Sub I-58 waits quietly in Sasebo Bay for its demise in the atomic bomb tests.

Submarine I-58

A one-time cruiser killer rusts quietly in Sasebo Bay

By Sgt Michael Brown

THE rusty-hulled Japanese submarine, I-58, bobs peacefully at anchor in the blue waters of Sasebo Bay. The I-58 is the sub that sank the heavy cruiser *Indianapolis* last July in the Philippine Sea. She is moored among several smaller submarines off Uragashira docks, and 14 members of her crew of 120 men are still aboard, kept there for policing and maintenance.

The I-58 will sail once more—this time to the Bikini atoll for the impending atomic bomb test.

Long-haired, sallow Lt Toshio Tanaka is acting captain in the absence of Comdr Mochiyuki Hashimoto, who recently was whisked to Washington, D. C., where he testified at the trial of Capt Charles B. McVay, USN, skipper of the *Indianapolis*.

Lt Tanaka is a surly man. He also is hardheaded. He frankly considers Americans are an inferior people. He has great difficulty in accepting the fact that his nation was defeated.

Tanaka said he has been aboard the I-58 since she was commissioned about three years ago.

If Tanaka can be believed, the *Indianapolis* wasn't the I-58's only triumph.

"We sank our first American ship in January, 1945, off Guam," he said, "and our second, a freighter, the following March." He did not identify the class of the first ship torpedoed.

"On the 29th of July," he continued, "we sighted the *Indianapolis* in the Philippine Sea, off the coast of Leyte.

"Comdr Hashimoto later commented on what a perfect target the American cruiser was, silhouetted against the sky."

Life now aboard the I-58 is hum-drum. The ten enlisted men and the four officers still around are quartered in their old compartments and eat at long-familiar dinner tables. United States bluejackets diligently stand guard while the Japanese crewman play cards, wash clothes, swab decks, wander about aimlessly.

Or, like Lt Tanaka, mentally relive the days when the I-58 was a cruiser-killer. END

Surly Lt Tanaka answers a Marine's query.

Ships and Battles

A quiz to test your knowledge of naval engagements. 15 correct answers for expert, 10 or better for qualification, less than 10 is strictly a landlubber's score

THE American warships listed below—battleships, aircraft carriers, and cruisers—all distinguished themselves in one or more battles with the Japanese navy. Some of these American warships were sunk; others remained in there to the last—helping to smash the remnants of the Imperial navy, to sever Japan's vital sea communications, and to bombard her vulnerable coastline.

After each ship's name is a statement of fact, followed by the names of three naval battles, in only one of which, however, did the ship participate. See how many ships you can identify with the correct battle.

1. ASTORIA, heavy cruiser (old), which in 1939 carried Ambassador Saito's remains back to Japan, was lost in the Battle of: (a) Savo Island, (b) Cape Esperance, (c) Guadalcanal.

2. ATLANTA, light cruiser (old), received such severe gunfire and torpedo damage that she had to be sunk by U. S. forces following the Battle of: (a) Java Sea, (b) Guadalcanal, (c) Cape Esperance.

3. BOISE, light cruiser, was very heavily damaged, almost sunk in the Battle of: (a) Coral Sea, (b) Guadalcanal, (c) Cape Esperance.

4. CHICAGO, heavy cruiser (old), was the only U. S. cruiser which survived participation in the Battle of: (a) Empress Augusta Bay, (b) Savo Island, (c) Tassafaronga.

5. ENTERPRISE, aircraft carrier, launched planes which helped destroy a Jap Kongo-class battleship in the Battle of: (a) Coral Sea, (b) Savo Island, (c) Guadalcanal.

6. GAMBIER BAY, escort aircraft carrier, was sunk by Jap warships in the battle (a) off Samar, (b) off Cape Engano, (c) off Guadalcanal.

7. HELENA, light cruiser (old), was torpedoed and sunk in the Battle of: (a) Surigao Strait, (b) Empress Augusta Bay, (c) Kula Gulf.

8. HORNET, aircraft carrier (old), which in April 1942 carried Doolittle's B-25s to bomb Tokyo, was lost in the Battle of: (a) the Eastern Solomons, (b) Santa Cruz Islands, (c) Philippine Sea.

9. HOUSTON, heavy cruiser, which had often served as President Roosevelt's "yacht," was sunk by superior Jap forces following the Battle of: (a) Savo Island, (b) Kula Gulf, (c) the Java Sea.

10. JUNEAU, light cruiser (old), was sunk with very heavy loss of life by a Jap submarine after the Battle of: (a) the Java Sea; (b) Guadalcanal, (c) Empress Augusta Bay.

11. LEXINGTON, aircraft carrier (old), was sunk by U. S. forces after she had sustained crippling bomb and aerial torpedo damage in the Battle of: (a) Guadalcanal, (b) Midway, (c) Coral Sea.

12. LEXINGTON, aircraft carrier (new), was flagship of Vice Admiral Marc A. Mitscher, Commander of Task Force 58, in the Battle of: (a) the Eastern Solomons, (b) Guadalcanal, (c) Philippine Sea.

13. MARYLAND, battleship, which was damaged at Pearl Harbor, helped annihilate Jap warships in the Battle of: (a) Guadalcanal, (b) Surigao Strait, (c) Java Sea.

14. NORTHAMPTON, heavy cruiser (old), was torpedoed and sunk by Jap destroyers in the Battle of: (a) Tassafaronga, (b) Cape Esperance, (c) Savo Island.

15. SALT - LAKE CITY, veteran heavy cruiser, sustained considerable damage and was in grave danger of being sunk in the Battle of: (a) Kula Gulf, (b) the Komandorski Islands, (c) the Java Sea.

16. SAN FRANCISCO, heavy cruiser, received heavy damage and lost her captain and Rear Admiral "Dan" Callaghan in the Battle of: (a) the Java Sea, (b) Guadalcanal, (c) Kula Gulf.

17. SOUTH DAKOTA, new, fast battleship long known as "Battleship X," shot down 32 Jap planes in the Battle of: (a) Midway, (b) Santa Cruz (Solomons), (c) Kula Gulf.

18. WASHINGTON, fast battleship, quickly sank one of Japan's Kongo-class battleships in the Battle of: (a) Guadalcanal, (b) Cape Esperance, (c) Surigao Strait.

19. WEST VIRGINIA, battleship, raised from the Pearl Harbor wreckage, helped smash a strong Jap force in the Battle of: (a) Surigao Strait, (b) Cape Esperance, (c) the Komandorski Islands.

20. YORKTOWN, aircraft carrier (old), was sunk by a Jap submarine after the Battle of: (a) Midway, (b) Santa Cruz, (c) Guadalcanal.

(Answers on page 46)

What Fliers Want

Military airmen have definite ideas about what they expect in the civilian flying world. They want cheaper planes, more airports, navigational aids, and general aeronautical education.

By Lt J. Davis Scott

AMERICA'S military airmen—particularly the flying marines—have definite ideas about what they want in postwar civilian flying. And they are anxious to have their say. They are deeply interested in civilian flying and its problems because many have planned to keep on flying now that the war is over—even if only for an occasional vacation trip.

Typical of the opinions are those of two Marine Corps' carrier-borne fighting squadrons with whom I talked when we were en route home from an intensive campaign against Japan in the war's final weeks. Naturally their opinions are the opinions of youth, but their thinking is based on experience gleaned from long, gruelling hours spent in the air under all kinds of conditions. They cannot be lightly cast aside.

Nearly all of these youthful fliers hope to own their own planes but they know that this will hardly be possible unless the price range is more within the reach of the average man.

The two-place light plane is their first choice. and they'd like to see planes sell for less than $1,000.

They feel that more airports—especially small and better situated strips—will make for better flying, increased public interest and a reduction of flight hazards.

They believe that many of today's civilian plane radios are outmoded.

They feel there is a definite need for more navigational aids.

There is a need, they contend, for widespread education on the subject of flying to make many realize its possibilities for business and pleasure.

It was the consensus that the CAA rules should not be relaxed; many wanted them more rigid.

They vision civilian flying as an opportunity for many pleasant hours of relaxation. Some, with an eye to business, see their wartime experience and training bringing peacetime profits.

One man is hoping to land a position as a pilot for a large manufacturing firm whose plants are spread out all over the country. He figures the airplane will enable this firm to make quick, easy, more satisfactory contacts with its many branches. Others in the group with whom I talked plan to seek positions at civilian airports or airlines, while others are anxious to become instructors.

Probably the most ambitious, insofar as peacetime flying is concerned, is a veteran of sky battles over Guadalcanal, Tokyo, Iwo Jima and Okinawa who aspires to own and operate his own little airport—using his combat-earned savings to build a small, modest strip where he can provide servicing facilities, storage and instruction for the civilian flier.

A business without an airplane, they believe, might have difficulty keeping ahead of its competitors—particularly if it is a national business.

"Just like the oldtime grocery store needed a horse and wagon and then a truck" said one pilot, "so will the modern firm with nationwide interests need a plane. It will not be a luxury but a necessity."

You can be sure, too, that those among these military pilots who go into business for themselves will give consideration to the use of a plane. The light plane, they assert, will someday be like the family automobile. It will be utilized for both business and pleasure trips.

These combat pilots said they particularly wanted: Light planes with engines between 450 and 500 horsepower. Small sport planes for vacations. Aircraft that are inexpensive to operate. Planes to hire—much like the "Drive It Yourself" automobile system. Planes costing under $1,000 if possible—but within the $1,000 to $2,000 price range at best.

There was evidence of serious thinking about civilian flying's future in their answers to the question "What improvements or changes would you suggest for better flying in the postwar era?"

More landing fields was one thing nearly everyone suggested. These pilots feel there is a need for small strips on the edges of communities and close to business sections to make plane travel more practicable for business purposes. The military flier admits that he does not fully understand the problems of civilian strip building, but he has seen so many strips and airports built in all kinds of places all over the world that he thinks little is impossible. He feels that one-strip fields in good locations would be a decided boon to flying while eliminating many flight hazards.

These one-strip fields and small airports, said one pilot, might well be sponsored by the federal government in a postwar building project to avoid unemployment. This program could be modeled, he said, after the national or state highway projects.

All felt that an air strip would soon be an important part of the vacation resorts.

The price of flying necessities such as hangar rentals, insurance and plane maintenance, are other things that interest the marine who will be a civilian flier one of these days. He is hoping to see reductions because he knows that these prices must be reasonable if flying is to have any widespread appeal.

One suggested improvement was ground markings and directions that can be easily read by pilots in flight. "The sky lanes should be as well marked as highways," said one flier.

Recalling some of his own experiences, one marine lieutenant who engaged the Japs over the Kure naval base, said: "I believe the small plane might well include some of the safety features of the military plane. For instance, pilot shoulder straps, better instruments and radios."

These pilots feel that a marked relaxation of CAA standards—even though it might benefit them when they seek civilian licenses—would not be a good thing for flying. None of them want to see civilian pilots as plentiful as automobile drivers—especially "peacetime Sunday automobilists."

One lieutenant foresees the need for adjustments of CAA regulations due to increased air travel in the next few years. He suggests that combat military pilots be invited to sit in with the CAA officials when the code is drafted. The average pilot understands that wartime flying is different, but he feels that his varied experience will be valuable in planning programs and codes for civilian flying.

As for ideas for educating the public on "How to Fly," the military's opinion is manifold. All feel that aviation training, at least its basic principles, should be made part of the high school curriculum, and that colleges should likewise give it a prominent place. "While these aviation courses will be necessarily technical they should be the school's most popular," ventured one pilot. It was believed that the courses could be designed to take the boy or girl student by easy stages from the classroom to the flying field. This system, it was felt, would provide better trained and more informed civilian pilots.

Radio and motion pictures were also suggested as excellent mediums to make the public more air minded. A series on "How to Fly" modeled after the one-time Bobby Jones movie strip series, "How to Play Golf," was suggested for entertainment as well as education on theater bills.

Federal or community sponsored flying schools were pointed out as another avenue to greater interest. All thought, too, that the modern newspaper and magazine cannot afford to be without a column devoted to flying.

Several of the marine airmen feel there is a need for an aeronautical organization similar to the American Automobile Association which would "promote wider understanding, present programs of educational nature and plan business and vacation trips of interest to pilots."

"A few years ago none of us knew anything about flying," one veteran pointed out. "Now we recognize it as the grandest thing of our age. We've seen flying in all its grimness. Yet we have learned to love it. Imagine the appeal flying will have when more people get an opportunity to see its finer side and learn its tremendous possibilities." END

UN Guard Duty

THE versatility of the U. S. Marine Corps has been responsible for assignment to many missions for which other existing military organizations appeared unsuitable. Marines have been sent to Tripoli, China, Nicaragua, Cuba, Iceland and other points of the globe. Having developed an international reputation and a cosmopolitan background, they seemed to be the logical choice as provisional guard for the Security Council meeting of the United Nations in New York.

The guard, composed of four officers and 75 enlisted men, was formed at the request of UN and will be required for at least a month pending the expansion of a permanent UN guard force. The UN has acquired ten civilian guards as a nucleus of a permanent security force.

The Marines took over the varied tasks of police duty within the grounds of Hunter College where the Security Council meeting started and probably will be used for the same type duty at the new but still temporary site at Lake Success on Long Island. The Security Council will move to the former quarters of the Sperry Gyroscope company there in September. Arrangements at Hunter College have been too cramped.

The Marines provide the guard for the grounds and the conference halls from 0800 to 2400 daily. The midnight to morning duty is taken over by the UN guards. The Marines are billeted aboard the *USS Mercer*, a barracks ship converted from an LST (berthed in the Hudson River).

The hand-picked contingent, commanded by Maj Jonas M. Platt of Edgewood, R. I., carries no arms. Organized at Camp Lejeune, N. C., the men were sent to the Philadelphia barracks to be outfitted with dress blues. All members of the guard are veterans of overseas duty.

The United Nations' request for a Marine guard was forwarded from Headquarters to Camp Lejeune where MajGen John Marston, commanding officer, personally supervised selection of the men for the contigent.—*New York Times.* END

Eyes in the Night

(Continued from page 31)

move bulky equipment with parent aircraft units. Marine leaders saw that an independent air warning and fighter control organization such as Col Dyer urged was needed.

In February, 1943, therefore, it was decided to send a delegation of Marine officers and enlisted personnel to England to study the RAF air defense system. Returning from England, some of these men went overseas with VMF(N)-531 while others helped Col Dyer to outline a training program for Marine air warning squadrons.

Col Bayler, who had returned from the Pacific after extensive experience on Wake, Midway and Guadalcanal, was appointed commanding officer of the 1st Marine Air Warning Group (AWG-1) which was commissioned 1 July 1943. LtCol Best became commanding officer on 19 January 1944, when Col Bayler left Cherry Point on temporary detached duty. AWG-2, commanded by LtCol Robert O. Bisson, was commissioned at Miramar, California, on 8 January 1944. Its job was to issue equipment to squadrons organized at Cherry Point.

AWG-1 organized two kinds of squadrons, the regular which supplied air warning and fighter control for an established base and the assault unit which went in with the first waves in an attack to provide air warning for the ground forces. Plans were made to incorporate the assault features within the regular squadron.

The regular squadron had 285 officers and men with nine of the 20 officers acting as fighter controllers. Six of the enlisted personnel were corpsmen. The unit was as self sufficient as one of its size can be, carrying equipment, maintenance men, operators, technicians, electricians, radio operators, motor mechanics, bulldozer operators, and cooks.

The assault squadron had 185 men, 14 of them officers. Two ground observer teams were included to leap-frog ahead with beachhead drives.

AWG-1 received trained personnel from Army, Navy and Marine Corps Schools. Student controllers were chosen from AWS (commissioned directly from civilian life) and AV (officer training graduates) officers whose scholastic averages were high in subjects relating to map reading.

Student controllers were schooled in the Navy fighter director course at St. Simon, Georgia, and the Army controllers' course at Orlando, Florida, where they studied navigation, aerology, radio-telephone procedure, communications, fighter control and allied subjects. An indoctrination course at Cherry Point gave them the Marine Corps' slant on what they learned from the Army and Navy.

Besides schooling, these student controllers gained experience in bringing home lost planes by radio control. Several pilots, lost in the fog off the North Carolina coast, were saved from bailing out or emergency landings by following directions given by student controllers at Cherry Point.

Enlisted men handled the operation and maintenance of equipment and communications, leaving tactical control to officer controllers. A few recruits with no special training but with high mental aptitude scores were used for recording tasks but most of the enlisted men received technical training at Corpus Christi, Texas, the Marine Corps signal school at Camp Lejeune, or the Army school at Camp Murphy, Florida.

Air warning squadrons were not employed under any one particular parent group. Whenever a landing was planned, air warning squadrons were attached to a task force. An assault air warning squadron landed with the landing force, carrying light equipment to provide air warning and limited fighter control on the beachhead. The assault squadrons guarded our ground units from surprise attacks by enemy planes, giving plenty of time to get into foxholes or put antiaircraft guns into action.

This temporary warning service continued until the beachhead was firmly established. Then the regular squadron landed with its heavier equipment and took over the task of locating all air activity and coordinating defense units.

Commanding the air defense system was the fighter commander, normally the senior fighter unit commander, who had complete authority over the air warning squadron, the night and day fighter squadhons, and the anti-aircraft battalion.

Responsible to the fighter commander was the air defense controller who ordered the interception of hostile planes, saw to it that fighters returned safely, instituted searches for lost pilots, controlled all operations, all air activity and exercised direct control over the antiaircraft and searchlights.

Heart of the air warning system was the control center where raid information from outlying radar posts was collected. When hostile or friendly air action was reported, it was displayed on a huge operations board or master map of the area.

The air defense controller kept a constant check on the operations map. Seeing a hostile track appear on the map, he declared an alert and had liaison officers from fighter squadrons contact their units. The fighters were sent up to intercept the hostile flight. In the meantime, liaison officers with the defense battalions passed the word to their units to stand by with antiaircraft fire in case the enemy planes eluded our fighters. END

military digest

A monthly digest of important articles from leading military periodicals

—may index—

Artillery on Offshore Islands

by Capt Bernard C. Borning, FA

What service schools used to call a weak link in amphibious operations—the period after the doughboy hits the beach, and before artillery lands and starts firing--isn't so weak any more. Okinawa was another example.

Part of the solution is to emplace artillery on an offshore island in advance, and have the big guns in there pounding when the infantrymen keep their H-hour appointment on the main beaches. Of course, this still doesn't obviate the need for rushing other artillery ashore as close behind the initial assault waves as possible.

At Oahu, when Tenth Army got the mission of Okinawa, the artillerymen immediately began study of maps and intelligence reports to locate suitable offshore islets for emplacing pre-H-hour artillery. They found some. In fact, the idea worked three times in the Okinawa campaign.

First was Kerama Retto. Plans called for the 77th Infantry Division to capture this group of islands southwest of Okinawa starting on Love-minus-six. On the morning of the appointed day, 26 March '45, the assault waves hit the first island, Geruma Shima. This island, one of the smaller ones in the southern part of the group, was to be the "artillery island" for supporting capture of the others.

By 1130, Geruma Shima had been secured, and by 1300, two 105mm battalions of the 77th Division Artillery started coming ashore in "ducks." This artillery proceeded to throw preparation fire across the water at Tokashiki Shima, biggest island of the group, scheduled to be invaded next day. Principal targets were the landing beach areas and Tokashiki town, where Japs were thought to be concentrated. Although no opposition was met at the beach or at Tokashiki, the artillery had been set up in advance and was ready to furnish close support at the call of the landing infantry. When men of the 77th did meet up with the Japs, the infantry-artillery combination functioned as usual. A few days later, Kerama Retto was ours.

The second example of offshore artillery was in connection with the landing on Okinawa itself. On Love-minus-one, the 420th (heavy) Field Artillery group inched in close and set up practically in the enemy's front yard—only 10,000 yards offshore from Naha, on the tiny coral islands of Keise Shima. Covered by naval guns, men of the 531st and 532d Field Artillery battalions landed over tough reefs and promptly set to work building causeways and unloading their 155mm Long Tom guns.

By late that afternoon, the 24 giant guns were emplaced and in firing position. Adjusting with an artillery observation plane launched at sea, the heavies registered on Okinawa and by dark were ready to back up next morning's infantry landing on the main island.

On Easter Sunday morning, when four Tenth Army divisions hit 10,000 yards of Okinawa's western beaches, and the other artillery was still floating, these Long Toms were throwing shells.

These guns on a tiny island near Okinawa helped blast a path for our invasion troops.

From their position on Keise Shima they could cover practically the entire southern half of the island.

Exemplifying another maxim of artillery employment in an amphibious operation, this other artillery didn't stay afloat long. Close behind the first assault waves, 12 battalions of Army and Marine artillery moved swiftly ashore for close support. By nightfall of Love-day 18 battalions had been landed, emplaced, and put in action on Okinawa.

The third example is probably the best instance of offshore artillery's actually running interference during an initial landing. This occurred in the 77th Infantry division assault on Ie Shima, an island northwest of Okinawa's Motobu Peninsula.

Landing day for this operation was set as 16 April. On 15 April, following the previous pattern, artillery rolled into position on a smaller offshore island. This time it was Minna Shima, from which artillery could nicely cover the objective island of Ie Shima. The 77th Division artillery put ashore three of its battalions—two lights and the medium. Immediately the artillery started a cub strip and got their 36 howitzers ready to support the Ie Shima landing to follow.

Next morning, behind close artillery support, doughboys of the 77th Infantry division assaulted the beaches. Ie Shima has been described as "a billiard ball." From the island's high center Jap mortars, small arms, and antitank guns opened up on the beachhead. The *Texas* and another battle-wagon a few thousand yards southwest of the island were throwing 16-inchers at the Japs, but their flat-trajectory guns couldn't get at the Nips on the reverse slopes. Artillery began dropping high-archers on the defiladed enemy positions. The Japs who weren't killed were kept down in their caves and holes long enough to let foot troops get in close and take care of them. Official reports say something like 4,300 Japs were killed on the tough little nut called Ie Shima. Doughboys who were there claim the artillery on offshore Minna Shima was a big help in cracking it.

These examples only go to show that modern amphibious tactics haven't outmoded the necessity for the old, artillery-infantry teamwork. In view of America's far-flung island defenses in the Pacific, it will be wise for field artillerymen to continue thinking in amphibious terms. ★

Answers to Quiz

(Questions on page 43)

1. (a)	11. (c)
2. (b)	12. (c)
3. (c)	13. (b)
4. (b)	14. (a)
5. (c)	15. (b)
6. (a)	16. (b)
7. (c)	17. (b)
8. (b)	18. (a)
9. (c)	19. (a)
10. (b)	20. (a)

Red Infantry Tactics

by Col I. Khitrov

EACH war brings about new developments in the field of armament and noteworthy improvements in the tactical methods of the conduct of operations in which troops have been trained in time of peace. Some tactical methods, not meeting the requirements in the first battles, are abandoned and make way for new ones. In other cases, it is enough to modify them. A continuous process of improvement in the field of tactics, therefore, is always taking place.

The late war called for considerable changes in the tactics of all types of forces. These changes were due, in large extent, to the unprecedented increase in the technical materiel with which the Red Army was provided.

Based on the massed employment of artillery, tanks, aviation, and all other types of technical combat equipment, the Soviet armed forces worked out new methods for the break-through of defensive positions. In this kind of operation, the Red Army found the best employment of each arm. The tactics of the infantry were accurately established. The role of such units as the rifle company was clearly defined.

To understand the characteristics of the operations of the rifle company in the break-through of a defensive position, it is necessary to bear in mind the general characteristics of the tactics of the Red Army in its break-through operations against the enemy defenses on the Karelian Isthmus, at Leningrad, in White Russia, on the Vistula, in East Prussia, on the Oder—in short, in all of its offensive operations during the second half of the war. The break-through of the solid German defenses, whether of positional or permanent type, began in all cases after direct contact with the enemy had been established. The approach to the positions was accomplished through stealth, and in most cases under cover of darkness. The areas of departure were organized by digging trenches, constructing firing positions and shelters, and making passages through obstacles. All measures were adopted to maintain secrecy with respect to the concentration of forces. The infantry attack, as a rule, began at a common signal.

The break-through was effected through the joint effort of all the arms. The rifle companies attacked as part of the general mass of infantry, which was supported by large amounts of artillery, tanks, self-propelled guns, and aviation. The engineers also took an active part in the fighting.

In those areas where the outcome of the attack was to be decided, the Soviet forces attained tenfold and even greater numerical superiority over the enemy in point of materiel. Provided with such powerful technical means, the attackers were able to destroy almost all of the enemy's fortifications.

The hammering of the enemy's defenses, deep in the rear, by our artillery, mortars, and aviation before the beginning of the infantry attack and the support of the attacking wave of rifle troops by tanks and self-propelled artillery created conditions which brought about new methods in break-through operations and in the employment of the rifle company in attack. From a gnawing-through of the enemy's defense by means of successive and planned attacks such as the Soviet infantry had studied up to the time of the war, Red Army units changed over during the course of it to a continuous attack, that is, to uninterrupted movement of infantry and tanks behind a barrage of artillery and mortars.

What was the basic reason behind so marked a change in the tactics of the Soviet infantry? It must be found, primarily, in *the increased artillery* attacking with infantry and tanks. Fifty to sixty guns to a kilometer of front—this was what our pre-war regulations provided. Two hundred and fifty to three hundred guns per kilometer of front was the actual number concentrated by the Soviet forces to break through the German defensive positions. The fire of the artillery and mortars, the blows dealt by the air force, and the support given by tanks aided the rifle units in the break-through of defensive positions and enabled them to advance *continuously*, occupying one German trench after the other.

When the break-through was based on successive seizures of enemy positions, then it became necessary to assign the company commander to the role of commander of a combat team. Tanks were attached to the company, and one or two batteries of artillery, accompanying guns, and machine gun and mortar platoons were assigned as additional support. The company commander coordinated the activities of these units just as a regimental or battalion commander would. He planned the operation in detail. Platoons were formed ordinarily in two lines in order that, the nearest attack objective having been taken, a halt could be made, fire means brought up, and the attack resumed with the entire company, thus bringing the second echelon into the operation. This slowed down the attack and reduced the initial impetus of the infantry. As a result of slowness in the development of the attack that

RED STAR, Aug. '45. Translated and digested for the Military Review at the Command and General Staff School, Ft. Leavenworth, Kansas.

Japan's Submarine 'Hangars'

One of the Japs' unusual war weapons was the "Item" or I-class suomarine, capable of carrying three Glen-type seaplanes and launching them from a deck catapult and recovering them again.

The big subs were nearly 400 feet long, 40 feet wide and had more than 3,000 tons displacement, compared to the 300-foot length and 1,500-ton displacement of the most common U. S. subs. The Jap submarine carried three demountable planes, which had the main wing removable as well as both gas tanks, upper and lower fin, floats, and all struts. They could be assembled and launched in 15 minutes and recovered and stowed in 30.

The planes operated from Pearl Harbor to Zanzibar. Prisoners of war said about a quarter of them were lost by accidents during launching or recovery. They were two-place aircraft with 9-cylinder radial engines, capable of cruising 500 miles at 80 knots, with a maximum speed of 190 knots in a 35 dive.

They carried a lone 7.7 mm machine gun in the rear cockpit and about 300 rounds of ammunition. No armor was present and the possible bomb load not known. The plane had a 36-foot wingspan, was 28' long and 12' high.

Although idea was a novel one, sub hangars' effectiveness was not impressive.
Naval Aviation News, March '46. ★

had been started, the enemy was permitted to bring up his reserves. The enemy was strengthened and the attack died out.

But the offensive operations of the Red Army in the recent war were very different. The infantry, especially the rifle companies, did not overburden themselves with supporting weapons. Cooperations between the various arms was organized by higher commanders. The rifle company commanders were executors of the plan of cooperation. They were required, in the first place, to be able to take advantage of the effects produced by all the various types of weapons and to occupy the areas bombarded by our artillery before the enemy did, and secondly, to be able to employ efficiently the company's fire means, organic as well as attached.

Company commanders endeavored to coordinate the efforts of the men and fire means within their units (fire and movement of machine gunners and riflemen, mutual support between the platoons and the accompanying weapons, etc.). In this, the company commander possessed complete authority. In other questions dealing with the employment of the various arms, the commander of the company acted in accordance with the plans of the senior commander. He had to understand the tactical elements of the plan, know the signals and other means of communication which the infantry used to contact the artillery and tanks, and indicate his position when requested to do so by the air force.

In considering the different forms of joint action of infantry and tanks, let us note two: the attack of units in the break-through of a defensive position and the break-through of a fortified position with the rifle company as the nucleus of the assault team. In the first case, there is no need of assigning rifle platoons to any particular tank. But, in attacking permanent emplacements the infantrymen must maintain the closest cooperation with the tanks. The riflemen must follow the tanks closely: operate in support of the combat vehicles by shielding them with their fire and advance under the protection of their armor. In the break-through of a defensive position, the rifle companies should exploit the successes of the tanks, remain close to them, promptly consolidate their gains, and protect them from the enemy's anti-tank weapons. Some believe that under such circumstances it is impossible to combine the operations of rifle platoons with *specific* tanks; that the mobility of the latter is too great and they may move from one flank of the company to the other in maneuvering along the front in search of the best direction of attack; and that, if each platoon follows a particular tank, it cannot maintain its original direction of attack. In the interests of assuring cooperation, however, the mission of the rifle company commander is to stay with the tanks that are providing support to the infantry and to assist them with his fire.

Combat experience teaches us that it is not necessary to overburden with reinforcing weapons the infantry engaged in the attack of a defensive position. But rifle troops do need the fire support of mobile artillery pieces. For this purpose, the 76mm self-propelled gun is best suited. The crew of this gun is protected from bullets and shell fragments. It moves in formation with the rifle units and does not require help from the riflemen when it is necessary to change position under fire. But 76mm guns should not attack ahead of infantry formations. for in this type of support it has proved value-

less and caused severe losses.

Battalion and regimental guns placed at the disposal of the company commander are ordinarily able to accompany the infantry at the beginning of the attack. In case of a rapid advance by riflemen, however, they sometimes fall behind. The gun crews are not able to move rapidly across the terrain and need the assistance of one or two rifle squads which the company commander must select from his dispersed attacking units. It is indispensable, however, that the rifle companies be adequately reinforced with a certain number of weapons. This may be achieved by attaching one or two guns to the company before the attack.

Regardless of existing difficulties, the companies should protect supporting weapons under all conditions. Supporting guns and infantry are inseparable in any operation. Their close cooperation is especially necessary in the attack of a defensive position. In cooperation with the weapons of the infantry, the supporting guns assist the rifle company in eliminating the enemy who have survived the artillery preparation. As regards the supporting artillery and mortars, the company commander should know the signals for requesting, shifting, and ceasing fire, how to make contact with the nearest artillery observation post, and how to designate the targets the infantry wants neutralized.

The rifle company has a variety of fire means. How are they to be used in an attack of a defensive position? There are two opinions with regard to this matter. One group affirms that, during the artillery preparation when hundreds of guns and mortars are pounding the enemy's trenches and the latter are continuously covered by the bursting shells of our artillery, and when the smoke and dust make it impossible to see the enemy, there is no need for the fire of rifles and submachine and machine guns. The riflemen and gunners should advance directly behind the bursts of the shells of the supporting artillery without opening fire. The other group affirms that it is essential that all infantry weapons fire. According to the latter view, for a few minutes before the assault, the infantry should deliver massed fire against the positions of the enemy, regardless of whether the target can be observed or not.

We believe that the second view is the more accurate one. Uninterrupted fire against the enemy's trenches is a necessity. From the first shot fired by the artillery, up to the time when the infantry hurls its hand grenades into the hostile trenches, the enemy must find himself under fire. This obliges him to take cover.

In the assault of the enemy's fortifications in the Karelian Isthmus, the fire of the artillery was distributed over the entire depth of the position. The first trench was taken under fire by mortars and flat-trajectory guns. Concealed tanks and self-propelled guns were in the battle formations of the infantry. Before the attack, fire was conducted by tanks, self-propelled guns, and infantry weapons. There was no interruption of the fire in this case. The enemy's trenches and shelters were always under fire. The infantry, trained in the methods of continuous attack, quickly broke through the defenses of the Germans.

This and other examples confirm the fact that the combined fire of artillery and infantry is needed during a certain period of the artillery preparation. In conformity with this, the infantry should bring into action all its fire means for a few minutes before the artillery preparation ends.

Powerful artillery fire and the fire of supporting tanks, combined with that of infantry weapons neutralize enemy defenses, destroy fortifications, and drive into shelters those who have escaped artillery preparations. By these means, rifle companies in attacking a defensive position are enabled to make a continuous attack, to move ahead uninterruptedly until all the lines of trenches in the enemy's defensive zone have been taken or the companies are relieved by succeeding echelons.

When the break-through of a defensive position was effected in accordance with the method of successive seizures of enemy strong-points, platoons, companies, and battalions were assigned independent tasks. A gradual and steady increase in the strength of the attack was obtained by means of echeloning the troops—even such subordinate units as the company and battalion. Experience in war brought about many modifications in these battle formations. If the regiments and larger units employed echeloned formation at the time of the break-through of a

5thMarDiv Spearhead

A limited number of copies of Volume III of the Fifth Marine Division SPEARHEAD are still available. This is the final issue that covers the activities of the Fifth Marine Division during its participation in the occupation of Japan. Officers and men who were attached to the Fifth Marine Division on 1 September 1945, or joined subsequent thereto for occupation duty in Japan, and who have not received a copy of this volume at their home address may have one now by addressing their request to the Public Information Office, Camp Joseph H. Pendleton, Oceanside, Calif. A copy will be forwarded immediately postpaid.

defensive position, the battalion customarily attacked in one echelon. Being in a common formation, battalions, companies, and platoons were assigned similar combat missions. As a rule, these were limited to two or three lines of trenches that had to be overrun by the rifle companies attacking in the first echelon.

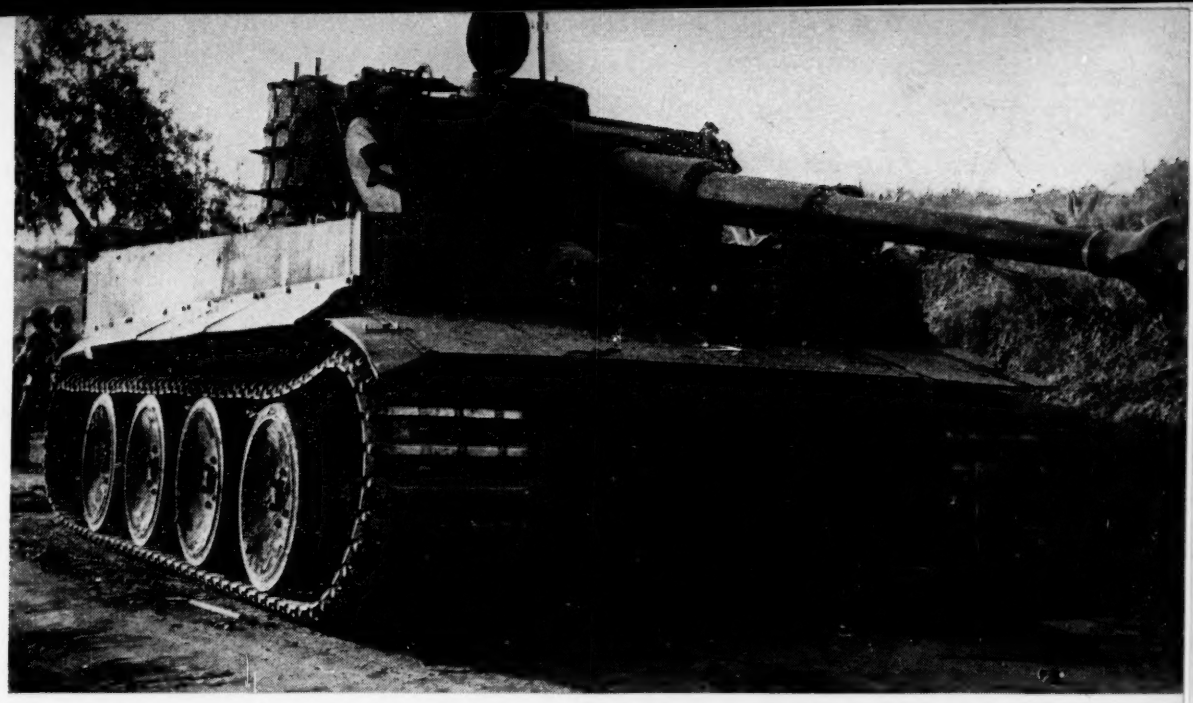
The enemy trenches were located at varying distances from our line of departure. The attack of a German defensive position sometimes began at a distance in excess of the standard 180 to 200 meters. That which should be done under such circumstances is to halt within assaulting distance, after having advanced to that point under the protection of the artillery. Battle experience shows, however, that it is preferable not to halt.

Thus, the role of the rifle company and its commander in the break-through of a defensive position is different in actual practice from what was formerly believed. In preparing to attack a defensive position, the company commander should occupy the line of departure without attracting attention. He should be able to pass, unnoticed, through the lines of the unit that is already there. When this has been done, the position must be organized and camouflaged. It is important that everything be done to enable the company to launch the attack as soon as the signal is received.

Advancing rapidly, the company must coordinate its movement with the fire of the artillery and the supporting tanks. Skillful employment of all fire means is imperative. As soon as the trenches have been reached, the commander selects a few men for clearing them of the enemy. In working its way through the defensive zone. the company quickly closes up into a column or into columns of platoons to pursue the enemy when his fire weakens. The commander, main taining personal observation of the field of battle, seizes the first opportunity to form the column or columns. This is very important in the development of the attack and the maintenance of its high tempo.

Having overcome the organized defense of the enemy, the companies gain great freedom of maneuver. A broad field for the display of personal initiative is then opened to the commanders. In this stage of the operation, the commander of the company needs more powerful weapons (battalion mortars, antitank rifles, and heavy machine guns) with which to crush isolated centers of resistance—combining fire with maneuver, turning the enemy's flanks, gaining his rear, and effecting his encirclement.

These, in general, are the principles involved in the attack of a rifle company against a defensive position of the enemy in a break-through operation. ★



The German tank was wider and thicker than ours, and had more powerful armament.

Tank Versus Tank

by LtCol Albin F. Irzyk, AUS

THE American tank is not nearly as good as the German tank." "Next to the German and Russian tanks, the American tanks are the best in the world."

Quotations, opinions and comments similar to the two above have been widely publicized and caused widespread discussion and helped fashion erroneous conceptions.

The German Tiger tank is unquestionably superior to the American Sherman tank, if the gun, the weight of the tank, the width of the track and thereby the flotation of the tank is used as a criterion. The German 88 is more powerful than any American tank gun used during the course of most of the war.

In discussing tanks, many forget that the tank is not a vehicle built primarily to fight other tanks. Its mission, above all others, is to get into the enemy's rear areas, to disorganize him, to destroy supply and communications, and to wreak havoc there.

A factor rarely considered is the type of bridge that a Sherman can use to cross a stream or river. Many bridges adequate for the American tank would pose a knotty problem for the German tank. The bridge would have to be wider and stronger, and would require time and more facilities to construct.

Let us go on. What is the fuel capacity of the German tank? How long and how far is it able to run on a tank full of gasoline? Does it burn much oil? How many rounds is it able to stow? Are maintenance problems easy to remedy? How much skill is required to change an engine? Is the German tank able to move for long distances and continuous periods at a steady rate of speed? Such factors must be included before a thorough, honest, and fair comparison can be made and a sound and intelligent conclusion reached.

Prisoners of war claimed that their large tanks had a running time of a mere 2½ hours on a full vehicular load of gasoline. Thus the tanks did not have the endurance nor the cruising ranges of our tanks. A group of American tanks made a forced march of 258 miles in 38 hours from the Normandy Peninsula as far east as the Meuse River and arrived in good enough shape to have continued had the situation warranted it. The Germans developed a gun with a high muzzle velocity and had to increase the size of the shell and thus could not stow many rounds. They had to be transported by rail virtually to the front lines, unloaded, and put into battle. How

But the American tank could move swiftly for long distances with plenty of ammo.

far could we have gone with our tanks if we had had to follow a procedure like that? The American tanks go 90 miles and often more on a tankful of gasoline.

Even though the German tanks were much heavier and thicker than ours, their armor was centralized. Most of it was on the front slope plate and turret. Sides and rear were often vulnerable, and how we capitalized on that. It often cracked on impact, leaving ragged, gaping holes, whereas the holes in our tanks were clean, circular, and easily repairable.

Not long before the curtain dropped on hostilities in Europe, the American General Pershing tank made its bow. It has a 90mm gun, weighs forty-six tons, has a different suspension system, and has a silhouette. It is said that here is a tank that incorporates all the advantages of the Sherman tank, making it superior to the German Tiger in every respect. ★

Logistics and Modern War

by LtCol John D. Millett, AUS

MILITARY commanders of whatever rank have never been free from supply worries. Preparations for battle have always been the greatest task of the military leader, have always demanded his most sustained attention. If campaigns have not always been won by the best prepared, wars have seldom been lost by the nation with the greatest resources in men and equipment.

Yet surprisingly enough, only passing attention is usually given to supply problems in the memoirs of the great military figures of history. Military analysts have written at length about marches, the deployment of forces, and the reduction of fortified places. Yet only a few words are given to logistics.

No military authority has suggested that the problems of supply are necessarily the final decisive factor in war. On the other hand, it is amply evident, particularly today, that no army can wage war successfully without unlimited resources for its support in the field. Behind all combat organization and all modern strategy lies a nation's capacity to produce and provide the weapons of war. The present war has provided many examples of brave troops whose courage and determination were inadequate against an army with superior equipment and complete control of supply lines.

The problems of supply have always affected the course of military campaigns. During the American Revolution, General Washington was able to muster a large force for only a few days at any one time because of the lack of any means for systematic supply of his troops. One historian has noted that Washington was "forced to be a collector of supplies when he hoped to be a leader of men."

Two of Napoleon's greatest defeats resulted from a complete under-estimate of supply difficulties. Wellington was able to maintain his forces in the Peninsula because of his sea communications with England and his steadfast insistence upon adequate supply from the homeland. The French armies in Spain were compelled to disperse in order to forage, while Wellington, with his communications line, was able to concentrate his forces and defeat the French in piecemeal fashion. The disaster at Moscow in 1812 was almost entirely a supply defeat. If Napoleon had examined with care the success of Charles the XII in Russia, he might not have made such a mistake. On each field of battle, the French armies were successful against the Russians but inability to obtain supplies compelled Napoleon to retreat from Moscow and eventually to lose most of his force to the climate and Russian guerrilla tactics.

At the end of the 18th Century, two great changes occurred which were to have far-reaching effect upon the conduct of war. The citizen army and the Industrial Revolution together wrought fundamental changes in the logistical factor in warfare. Previously the accepted military maxim had been "to live off the country." This was feasible when the most important item of supply was subsistence and forage. It was equally possible as long as armies were small bodies of men. Henceforth to live off the land was no longer an acceptable military practice although this development was not entirely appreciated until well into the 19th Century.

The American Civil War demonstrated to the whole world the emerging importance of industrial power in military conflict. The Confederate states represented an agrarian economy. The North, in the long run, won the conflict because of its superior economical resources and its successful blockade of the Southern states. General Lee might win battles but he could not win a war. General McClellan may have been slow and even reluctant to risk battle, but he was thorough in his organization of supply facilities. Each time he invaded the North, General Lee was

The final step in logistics, moving supplies from ship to shore, was often the toughest.

compelled to retire not only because of a temporary repulse at Antietam and Gettysburg but even more because he was unable to move and supply his forces.

The lessons of the American Civil War were only slowly appreciated. Such rapid campaigns as those of the Prussian Army against Denmark, Austria, and France from 1866 to 1870 overshadowed the superior preparations which had preceded the actual military operations.

When the United States entered the war against Germany in April 1917, our industrial preparation was negligible. On a tonnage basis, the report of the Services of Supply at the end of the war showed that 51 per cent of all supplies for the AEF were provided by our Allies. At the end of the war, American munitions were just beginning to flow on a large scale from American factories.

The nations of the world learned the importance of industrial preparedness as a result of the experience in World War I. In the United States, this demonstration led Congress to confer upon the War Department responsibility for planning for the industrial mobilization of the nation's resources for the eventuality of another war.

World War II has demonstrated the interlocking considerations of strategy and logistics. The great objectives of German military operations were the economic resources of the European continent to support her own military production. The determination to attack Russia in the summer of 1941, often hailed as Hitler's greatest mistake, was to a great degree dictated by logistical considerations. It is altogether probable that the Japanese decision to attack the United States was prompted by the measures taken to curtail essential raw materials for the support of Japan's war in China.

After the entry of the United States into the war against the Axis, joint British-American strategy was determined by logistical factors. Japan's rapid advance throughout the Pacific area and Malaysia went unchecked except temporarily on Bataan because of Allied inability to move men and supplies into the area. Eventually it was decided to launch the major blows upon the Axis directly against Germany for the simple reason that England was available as a base for the attack. Here were large sources of supplies which did not have to be transported for the British Army. The distance of British ports from the United States was only half the distance of Australian ports. The capacity to unload and handle supplies in England was far superior to that available in Australia. These considerations made deployment of a major striking force in Europe possible far sooner than in the Pacific. There a holding action with individual tactical offensives was the only alternative because of the logistical situation.

"Guided Missiles" Battalion

Organization of a special ground troops' unit to keep actual military use of long-range missiles abreast of scientific development in this field has been announced by Gen Jacob L. Devers, Commanding General of Army Ground Forces. The newly created "guided missiles" battalion will provide tactical troops to test and evaluate succeeding experimental models of new supersonic weapons as they come from the laboratories of various units now working on their development, the announcement said. A second mission assigned to the new unit will be to develop tactical plans for the employment of the new missiles. In this way, it was pointed out, the battalion will supplement rather than duplicate scientific research.

Indicating the need for such a unit to keep tactical pace with technical developments, the announcement cited the great increase in the effectiveness of traditional artillery weapons during World War II through use of radar, the proximity fuze, improved computing devices, and similar scientific advances for achieving greater accuracy. The new unit will keep military usage abreast of developments in the field of guided missiles, the long-range artillery weapons of the future. Army Ordnance, Mar-Apr. '46. ★

The first essential in the logistics of modern war is the adequate procurement of supplies. The production of military equipment requires industrial facilities, raw materials, and labor. The provision of all of these takes time. It is impossible when a nation does not have the resources with which to begin in the first place.

The broad problems of procurement in war time may be divided into three major categories —the division of a nation's output, the role of the military in procurement operations, and the distribution system.

The first great problem is the division of the nation's economic resources between the armed forces, the immediate production for maintaining direct war output, and the production necessary to sustain the civilian population producing war goods.

The second great problem in procurement was to determine the role of the War Department in managing the resources made available for war production. Because of the close interrelationship between strategy and logistics, even to the point of modification of weapons to meet particular tactical needs, the War Department had its own organization for the purchase and manufacture of supplies. Eventually satisfactory lines of mutual cooperation were worked out between the great civilian agencies controlling the mobilization of economic resources as a whole and the War Department controlling the procurement of specific military supplies.

In the third place, the distribution system for the supplies of the Army had a vital relationship to procurement. Inventories maintained within the United States to insure the continuous flow of supplies to troops affected military requirements. Moreover, the prompt location of supplies wherever they might be was essential in order to meet troop demands. In other words the efficient utilization of the production made possible by the resources available for war production required an adequate system of distribution. The two could not be divorced.

The protection of the United States on battlefields thousands of miles from our continental limits focused particular attention upon transportation.

Landing ships were built and used to haul supplies over short distances in combat readiness. This helped avoid the tie-up of transport vessels in large-scale military movement until they could be efficiently used.

Time was essential to transportation. Military operations had to be scheduled as transportation conditions permitted. The attack upon Sicily, for example, was originally planned before the final completion of the North African campaign. An inability to provide the necessary transportation compelled a postponement of D-day. Later the Commander-in-Chief of the North Africa Theater of Operations estimated that if one additional division could have been transported to Sicily, the escape of the Germans after their defeat there could have been prevented.

No surer evidence of the importance of transportation to modern war can be assembled than the continuing attention given by both sides to interruption of transportation facilities.

Supply is a problem of movement overseas wherever troops operate against the enemy. Amphibious warfare has emphasized the problem of bases, ports, and supply lines immediately behind combat troops. Supplies must be unloaded and strengthened in preparation for an assault upon the enemy. No military operation is possible until adequate buildup has taken place close to the expected scene of conflict. Much has

been said about the new elements of warfare introduced by the airplane. This is true. Yet, the success of the airplane in use against the enemy is dependent upon ground transportation. This has been amply demonstrated in the difficulties in supporting active aerial operations against the Japanese in China.

In the Pacific, where ports have been unavailable, amphibious trucks had to be used to unload supplies. Landing craft likewise provided a means for direct support of military operations. One by one new points of operations were found and kept supplied by a constant stream of vessels. Thus coastwise traffic in the Southwest Pacific took the place of inland traffic characteristic of military campaigns in North Africa and Europe. In both cases continuing flow of supplies was indispensable to successful operation against the enemy. Sustained pressure was only possible when a sustained flow of supplies was assured.

The experience of the Second World War has demonstrated certain lessons which must be borne in mind by future generations if military defeat for this country is to be avoided.

The first of these lessons is the importance of industrial preparedness. Military training and an adequate military force are of little avail without industrial facilities and organization capable of supporting the forces to be put in the field.

In the second place, supply and strategic considerations have today become so intertwined that no line of demarkation is possible. Total war knows no differentiation between military economy and civilian economy. Unless victory is to be jeopardized, all resources must be used for war.

In the third place, procurement without a completely adequate distribution system is of little avail. Supplies must be moved and moved promptly. Waste in the accumulation of large inventories means ineffective military operations.

In the fourth place, American defense is dependent upon its overseas transportation facilities. If once an enemy is permitted to occupy American soil and sustain an attack upon our continental territory, the prospects of successful resistance are meager. America depends upon her foreign outposts and those foreign outposts can only be maintained with adequate control of the sea. This means not only naval power but also the vessels to move troops and supplies. This lesson was amply demonstrated by the attack by Japan upon the Philippines in 1941.

In the fifth place, military operations overseas are dependent upon their own supply machinery. Supplies unloaded from the United States must be stored until needed and then promptly moved in support of military attack. No Army can afford to ignore the machinery available to it for its constant support. Depots, railroads, roads, trucks, pipelines—all these come increasingly indispensable as troops move away from coastal bases. When water rather than land is the means of communications, one base serves as the supply point for the next area of operation. The job of logistics is to make possible the free movement of troops and free them from the limitations of time and space.

If these lessons are fully appreciated not only by our military leaders of tomorrow but also by an alert citizenry, the United States may look forward to its future security with reasonable assurance. ★

With the Chinese Army

by Col Hubert M. Cole, FA

CHINA is a popular subject these days and much is being written about the turbulent internal and external circumstances and relationships of this great country. Little has been written, however, from the point of view of Americans stationed there. Whether American officers and soldiers will remain for long in China cannot be known, but since the possibility thereof exists, an article on the peculiar conditions of such service is considered appropriate.

I served in the "Y" Force of the Chinese Training and Combat Command from January 1943 to June 1944, not only with the Field Artillery Training Center in Yunnan Province, but also with the V Chinese Army Group, the major part of which was in the vicinity of Kunming.

During my period of service in China, most newly arrived Americans went through an initial period of considerable disillusionment and discouragement. This was due, I believe, to their having failed to appreciate the undeveloped character of the country, to a preconceived misunderstanding of the capabilities of the Chinese Army, as well as to a belated realization of the many difficulties and obstacles to be surmounted.

Geographically, China is a vast area which including Manchuria is about one and one-third times the size of the United States. Much of this area is mountainous and important parts are

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divided from each other by mountain ranges. Great portions of the southern provinces are covered by rice paddies. In general the climate is similar to that of the United States except for rainfall, which is generally less.

The scarcity of communication facilities in China is not generally realized. True, there are railroads, motor roads and motor vehicles, but all are most limited, by our standards. Most of the motor vehicles are in a very poor state of maintenance and repair; moreover, the Chinese invariably overload them. When a unit of Chinese troops moves, it moves by marching, except in the most unusual circumstances. When a Chinese officer must change station, he walks—unless he is fortunate enough to get a lift on a truck or a pony cart or can afford to hire a chair which is carried by coolies. Only in unusual circumstances is American air transport made available to move Chinese troops.

The difficulty of the Chinese language is certainly a major obstacle to efficient dealing with the Chinese. The official dialect is Mandarin, which is spoken by the largest language group of Chinese people. Cantonese dialect is spoken by the second largest language group of people in China. There is as much difference between the Mandarin and Cantonese dialects as between French and Spanish. There are many other dialects in addition to Mandarin and Cantonese. In some cases people living in villages only ten or fifteen miles apart cannot understand each other because they speak different dialects.

The written Chinese language consists of around thirty thousand characters, each character having the meaning of a word, and these are the same for all dialects. It takes years for a scholar to learn all of them. Of course, it is practically impossible to manufacture a typewriter capable of printing the Chinese language. I have heard it said that there are such machines but I have never seen one.

The American officer or soldier serving with the Chinese is forced to rely on his interpreter. In giving instruction the American states a sentence or two and the interpreter translates. It is best to give the interpreter the text to study before a class or lecture. The American should look at and talk to the person to whom he is speaking and should not talk directly to the interpreter.

Politically China is not a well integrated nation. The Central Government (Kuomintang) has undoubtedly made great progress in unifying the nation, but there are important areas that do not recognize the authority of this government, of which the Communist areas are, of course, the largest and most important. The current bitter struggle between the Kuomintang and the Communists is the culminatiogn of many deep-seated pressures, both internally and externally. The outcome of this struggle—of such vital interest to the United States that the President has seen fit to utilize the good offices and broad experience of general of the Army George Marshall as our Ambassador in China—cannot now be foretold.

Chinese food served at banquets is carefully prepared and very delicious indeed. (In view of the prevalence of dysentery the usual precautions must be observed—drink only boiled water and do not eat uncooked food unless it is something that can be peeled.) You may need to acquire a taste for some dishes, and you should learn to use chopsticks well. No dairy products are used by the Chinese and they have no refrigeration, so all meats must be eaten promptly after being slaughtered.

The organization of the Chinese Army follows the same echelons of command as our own except that the army corps is omitted. The chain of command is from division to army. The army corresponds to our corps and the army group to our army. The Chinese units were usually greatly understrength. One battalion of field artillery is all that is normally provided for each army of three divisions, although the Chinese units that were trained and equipped in India did have one battalion in each division. The field artillery was equipped with German, Russian, French, and American material. By June 1944 six battalions had been re-equipped with our 75mm pack howitzers.

The infantry weapons consist of the Chinese-made *Generalissimo* rifle (modeled on the German military rifle), the Chinese-made light and heavy machine guns, some 60mm mortars supplied by the United States, a certain number of Bren guns and tommy guns, as well as the Chinese-made 82mm mortar. They also had some units equipped with a powerful but inaccurate 150mm mortar. The Chinese-made weapons were serviceable, but the Generalissimo rifle was made of poor steel and inaccurate after a few rounds.

One serious defect of the Chinese method of exercising command is that the commander does not delegate authority or use his staff. Control is highly centralized.

There is no fundamental reason why Americans and Chinese should not get along well together. Actually, they have important qualities in common. First among these is a sense of humor, which certainly makes for mutual respect and regard. Moreover, Americans and Chinese both treat their womenfolk with respect and consideration. We must realize, on the other hand, that the bulk of the Chinese people have a strong prejudice against foreigners.

The Chinese do not like direct dealing as we usually do. They do not put "their cards on the table," but prefer an indirect approach to their objective. They have found that in dealing with

foreigners they can often get their way by simply waiting, as the foreigner will get impatient and give way in order to get the matter settled.

The Chinese are rather formal in their relationships and lay a great deal of stress on good manners, and preserving the "face" of the other person. For example, no Chinese would think of striking another in a quarrel, as that would put him in the wrong and cause him to lose face. Instead he will probably appeal to bystanders or passersby to hear the story and decide the matter. They usually think that Americans are crude and our rough and ready ways are often shocking to them. The matter of drinking at dinner parties is attended with considerable formality. You can announce that you don't drink but if you do drink you will be asked either to "guam pei" (dry glass) at which you empty your glass or to "shui bien" (as you please), when the amount you drink is at your discretion. It is a common practice to gang up on Americans in order to get them to drink too much, but many times the Americans will counterattack and rout the Chinese.

Their idea of responsibility for injured people is difficult for us to grasp. If a passerby gives aid to a victim of a motor accident he becomes responsible for the person, and is expected to pay for his hospitalization.

Another tendency that the Chinese have which is hard for us to understand is that of laughing when they have done something wrong or even when someone is injured. After a motor accident for instance, the Chinese driver even if at fault will probably laugh heartily. This naturally enrages Americans, but I have had it explained to me that they laugh in order to cover up their own embarrassment.

The Chinese do not know the meaning of privacy. They have been brought up under unbelievably crowded conditions—result, one man's business is everybody's business.

The Chinese are a proud and sensitive people. If while dealing with them you should get mad, swear a bit, and generally blow up you will make no progress whatsoever. They will probably pay no attention to you under such conditions. They will certainly not accommodate you. The best method of operation is to be as patient as they are, and to show them that they cannot outwait you. And finally never use the word "Chinaman" or such expressions as "Chinks," or "Slant Eyes." We do not think of the word "Englishman" or "Frenchman" as being a term which would insult anybody but "Chinaman" is so considered. The reason for this goes back to the days of the treaty ports when this word was used in a derogatory sense. The proper term for you to use is "Chinese." ★

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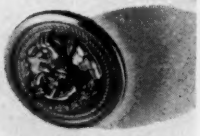

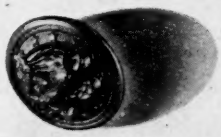

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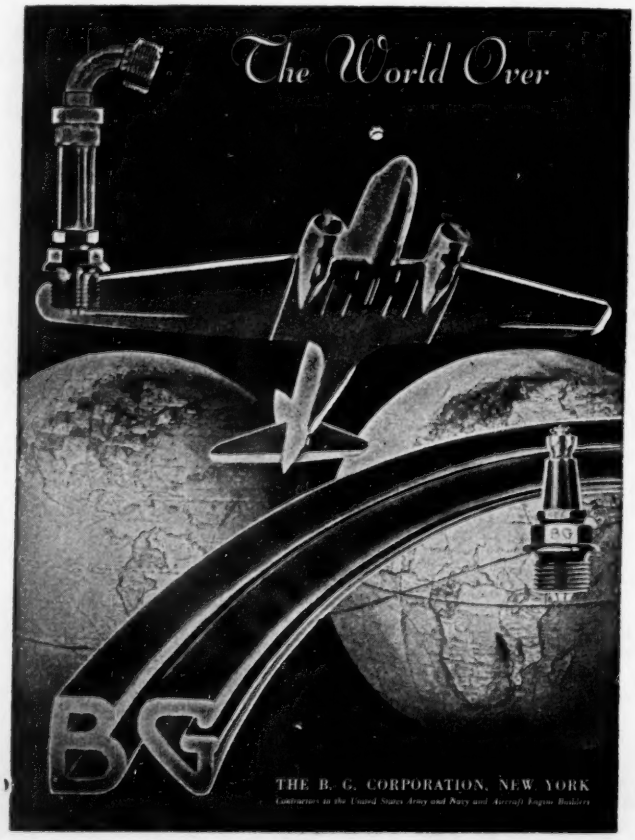

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JAPAN—
the unknown quantity

THEY smile, but yet they frown. They laugh, but yet they sneer. They agree, but yet they doubt. They dare, but still they shrink. They are conquered but not understood They are the world's greatest moral stud-card since the Sphinx-men checked out of business over 2,000 years ago. They are the denizens of a land whose only claim to recognition is the inability to comprehend or be comprehended.

They have bred a man who as a child is spoiled; as a youth is regimented; as a man is driven; and only in death respected.

They have bred a woman, who at birth is frowned upon, who as a girl shrugs listlessly at compliments, and tries in vain to define the strange sensations, if any, we recognize as love and jealousy. She learns that affection is only for infants, laughter for dark corners, and opinions for herself. She is fragile and delicate, but at work she rivals the ox.

It is a land of curios and contradictions. Its races are many, but their mold is singular. Their gods are varied and their rice is constant.

It is a land of tight, spotless homes and corrupted morals. Of curbed emotions and lost and found faces. Of helpless frustration and active volcanoes.

She copies, but fails to originate. She condemns a kiss and condones adultery. She laughs when hurt and insults her loved ones. Her islands are scattered, but her people are cramped. Her art is gentle and her tortures, violent.

She claims to be misunderstood, but fails to correct. She glistens like a pearl on a sandy reef, but is only sandstone. She is daffy, yet sober; she is a rebus of mental right-angles. Japan is the "X", the unknown quantity of the East-West equation.

By PFC PHILIP R. WAX

One Marine's impression of Japan and the Japanese.